FITCHBURG STATE UNIVERSITY
Catalog 2010-2011

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FITCHBURG STATE UNIVERSITY
Undergraduate & Graduate Course Catalog
2010–2011

FROM THE PRESIDENT

Welcome to Fitchburg State University! For more than a century, this institution has provided high quality educational opportunities to the people of the Commonwealth. Our legacy began in the 19th century with a former farmhand, Joseph Edgerly, who struggled to get an education and eventually graduated from Dartmouth. As superintendent of schools in Fitchburg, he was a tireless advocate for education. He led the fight for a post-secondary school in Fitchburg, and his vision became reality in 1894.

His heroic effort was mirrored in the following decades by people such as Maude Goodfellow, who graduated with the first class, then stayed on to teach for 40 years, and countless others, who established programs, constructed buildings, and transformed this college into what it is today: a highly respected comprehensive public institution with a long history of growth and a clear record of accomplishment.

That dedication and focus on excellence continues to this day. Things have surely changed—all of our students have laptops, for example, and the campus is wireless. Our academic equipment and facilities have been dramatically expanded and upgraded. Specialized laboratories, smart classrooms and multimedia centers abound.

On a more fundamental level, our faculty has never been stronger, our classes remain small, and our close-knit community still makes it easy to learn and grow. Students graduate with the insight and skills to be competitive in whatever professional environment they choose.

Both my wife, Jeanne, and I earned degrees here, and I count myself among the thousands whose lives have been changed by this most extraordinary college community. To have been afforded the additional opportunity to join the distinguished list of leaders is an honor I could never have imagined, and for which I am eternally grateful.

The Fitchburg State opportunity I have twice embraced is not so different from that which we offer all of our students. The tools for success are in place: ample financial aid, a caring community, dedicated faculty, outstanding facilities, extracurricular activities, and, most importantly, a focus on career-oriented learning firmly grounded in the liberal arts.

There is little that cannot be accomplished, as proven by our placement record and the 30,000 alumni whose contributions extend throughout the state, the nation and the world. The possibilities clearly exist; one need only take advantage of them.

All of us on campus have pledged to devote ourselves to providing students with the support they need, an effort I consider to be among the highest of callings. Best wishes for a rich and rewarding experience.

Robert V. Antonucci

Robert V. Antonucci
President

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ABOUT THE UNIVERSITY

PERCIVAL HALL

History of the University

Established in 1894 by an act of the Massachusetts Legislature, the State Normal School in Fitchburg opened in temporary quarters in the old high school building on Academy Street. Principal John G. Thompson, aided by a teaching staff of three, implemented a two-year teacher training program for women that had 46 participants. In December 1896, the school expanded into a new building, known as Thompson Hall, and set up the State School of Observation and Practice in city buildings on Day Street and Highland Avenue.

In the next decade the school was a trendsetter for programs in education. The Edgerly School opened, originally as an eighth-grade model and practice school. In 1910, it became one of the first junior high schools in the United States. The following year the school initiated the first practical arts teacher training course in the country for men.

In 1930, the State Normal School was authorized to offer a bachelor's degree in practical arts, and in 1932, when it became the State Teachers College at Fitchburg, four-year degrees were offered in all areas of education.

Under the auspices of the State Division of University Extension, summer courses were first offered in 1915, marking the beginning of the university's commitment to Continuing Education programs. In 1935, the college was also authorized to establish graduate programs and in 1954 the first evening courses were offered.

In 1960, the college changed its name and expanded its mission. The State College at Fitchburg diversified its programs to include degrees in disciplines other than education. In 1965, its name was officially changed to Fitchburg State College. In July, 2010 the governor signed legislation renaming us Fitchburg State University. Today we offer more than 51 undergraduate degrees in 14 academic departments, offering 25 majors, 32 master's degree programs, six Certificate of Advanced Graduate Study programs, and nine graduate certificate programs. Enrollment is up to 3,500 full-time and 4,000 part-time students which include 1,300 matriculated graduate students. The campus has expanded from a single structure on High Street to 33 buildings on 90 acres, becoming the educational center for the Montachusett region. The University proudly offers traditional and non-traditional programs to serve the educational needs of its students as undergraduate, graduate, and continuing education students.

State College Mission Statement

There are six comprehensive state universities—Bridgewater State University, Fitchburg State University, Framingham State University, Salem State University, Westfield State University and Worcester State University—and three specialized colleges—Massachusetts College of Art, Massachusetts College of Liberal Arts and Massachusetts Maritime Academy. All universities integrate liberal arts and sciences programs with professional education, and the three specialized colleges also focus on academic areas identified in the college's name.

Each college places a special emphasis on teaching and lifelong learning and promotes a campus life that fosters intellectual, social and ethical development. Committed to excellence in instruction and to providing responsive, innovative and educational programs of high quality, they seek to develop each student's critical thinking, quantitative, technological, oral and written communications skills and practical appreciation of the arts, sciences and humanities as they affect good citizenship and an improved quality of life. The state colleges provide a campus environment where the ideas, values, perspectives and contributions of all students are respected.

Massachusetts state colleges are strategically located to facilitate access to baccalaureate and master's degree programs for Commonwealth residents who meet their high standards for admission. In recognition of their responsibilities to Massachusetts taxpayers to manage their resources efficiently and to maintain tuition and fees at a level as low as possible, each college has a distinctive academic focus based upon its established strengths and regional and state needs. Each college is a leader and resource for the community and contributes to the region's cultural, environmental and economic development.

Mission

Core Values

Accessibility	Offering equitable access to high-quality programs and services to people of varying cultural backgrounds living within and beyond our diverse community of North Central Massachusetts
Affordability	Providing opportunities for students of varying socioeconomic backgrounds to pursue an affordable, quality education
Community	Forging partnerships with businesses and community organizations within the region to enhance quality of life
Enrichment	Sustaining a supportive campus environment for students, faculty, staff, and alumni in which all members can grow and excel in their personal and professional lives
Excellence	Striving for excellence in academic programs and services through innovative teaching and professional practices

Mission

Fitchburg State University is committed to excellence in teaching and learning and blends liberal arts and sciences and professional programs within a small university environment. Our comprehensive public university prepares students to lead, serve, and succeed by fostering lifelong learning and civic and global responsibility. A Fitchburg State education extends beyond our classrooms to include residential, professional, and co-curricular opportunities. As a community resource, we provide leadership and support for the economic, environmental, social, and cultural needs of North Central Massachusetts and the Commonwealth.

Vision

Fitchburg State University will be nationally recognized for its excellence in teaching and learning in current and emergent fields, for its commitment to transforming lives through education, and for its dedication to public service.

In order to achieve this, we will:

- Prepare students for a global society through curricular innovation and program development
- Achieve academic excellence by investing in our faculty and librarians in their pursuit of knowledge, professional competency, and scholarship.
- Employ innovative uses of technology in the library and across our campus to maximize student learning
- Create a culture of diversity to meet the needs of the region and enhance the personal and academic lives of the university community
- Build partnerships within our community to provide real-world opportunities for our students and collaborative solutions to community issues

Undergraduate Day School Academic Calendar 2010–2011

Fall 2010

August

31	Tuesday	Residence halls open for all new students
1	Wednesday	Residence halls open for all students President's address to faculty 3:30 p.m. Department Meetings, advising

September

2	Thursday	Classes begin 8:00 a.m.
6	Monday	Labor Day—NO CLASSES
8	Wednesday	Final day to add or drop a course
15	Wednesday	Final day to add or drop a course with Red Card
29	Wednesday	Final day for making up incomplete grades from previous semester

October

11	Monday	Columbus Day—NO CLASSES
12–29		Advising for Spring Semester

November

1–5		Register for Spring Classes
11	Thursday	Veterans' Day—NO CLASSES
17	Wednesday	Final day for withdrawal from classes without penalty
24	Wednesday	Thanksgiving recess begins 12:30 p.m.
28	Sunday	Thanksgiving recess ends

December

13	Monday	Last day of fall semester classes
14–20		Final semester examinations (weekend days excluded)
21	Tuesday	Snow day for final examinations

Spring 2011

January

17	Monday	Martin Luther King Day—NO CLASSES Residence halls open for all students
18	Tuesday	Assessment Day; Department meetings, student advising
20	Wednesday	Classes begin 8:00 a.m.
21	Friday	Winter Commencement 6:30 p.m.
26	Tuesday	Final day to add or drop a course

February

2	Wednesday	Final day to add or drop a course with Red Card
15	Tuesday	Final day for making up incomplete grades from previous semester
21	Monday	U.S. Presidents Day—NO CLASSES

March

11	Friday	Spring vacation begins 4:30 p.m.
20	Sunday	Spring vacation ends
21–April 8		Advising for Fall Classes

April

8	Friday	Final day for withdrawal from classes without penalty; Registration for Fall classes
18	Monday	Patriots Day—NO CLASSES
21	Thursday	Honors Convocation; afternoon classes suspended at 1:30 p.m.

May

11	Wednesday	Last day of spring semester classes
12-18		Final semester examinations (weekend days excluded)
13	Wednesday	Residents Halls Close
19	Thursday	Graduate Commencement 6:30 p.m.
21	Saturday	Undergraduate Commencement 10:00 a.m. Residence halls close for graduating seniors
23	Monday	All University Development Day

Calendar Subject to Change

Graduate and Continuing Education Academic Calendar 2010–2011

Fall 2010

July

12–Sept. 8	Online Registration via the web
19–31	Walk-in/Mail-in/Phone-in Registration for fall 2010 semester Sanders Administration Building 8:00 a.m.–6:30 p.m. Mon.–Thurs. 8:00 a.m.–5:00 p.m. Fri. To register by phone, call 978-665-4196 (MasterCard, Discover, American Express and VISA ONLY)

August

1–31	Registration (cont.)
25	Late Registration begins. Registrations and course changes accepted prior to the second class meeting. (Class meeting defined as 2.5 hours)

September

8	First day of classes
29	Final date for making up Incomplete Grades from previous semester. (spring and summer 2010)

October

11	Columbus Day—NO CLASSES

November

11	Veteran's Day—NO CLASSES
24–28	Thanksgiving Holiday—NO CLASSES

December

20	Last day of fall semester classes

Winter Session 2011

November

1–30	Registration for winter session

December

1–27	Registration for winter session
28	Winter Session begins

January

14	Winter session ends

Spring 2011

November

1–30	Online Registration via the web
8–30	Walk-in/Mail-in/Phone-in Registration for spring 2011 semester

December

1–31	Walk-in/Mail-in/Phone-in Registration for spring 2011 semester Sanders Administration Building 8:00 a.m.–6:30 p.m. Mon.–Thurs. 8:00 a.m.–5:00 p.m. Fri.

January

2–20	Spring Registration (cont.)
6	Late Registration begins. Registrations and course changes accepted prior to the second class meeting. (Class meeting defined as 2.5 hours)
20	First day of classes
21	Winter Commencement 6:30 p.m.

February

15	Final day for making up Incomplete Grades from previous semester.
21	U.S. Presidents' Day—NO CLASSES

March

11–20	Spring vacation—on-campus courses

April

18	Patriot's Day—NO CLASSES

May

18	Last day of spring semester classes.
19	Graduate Commencement—6:30 p.m.
21	Undergraduate Commencement—10:00 a.m.

Calendar Subject to Change

Graduate and Continuing Education Summer Session 2011

Summer Session I/ May 31–June 30, 2011

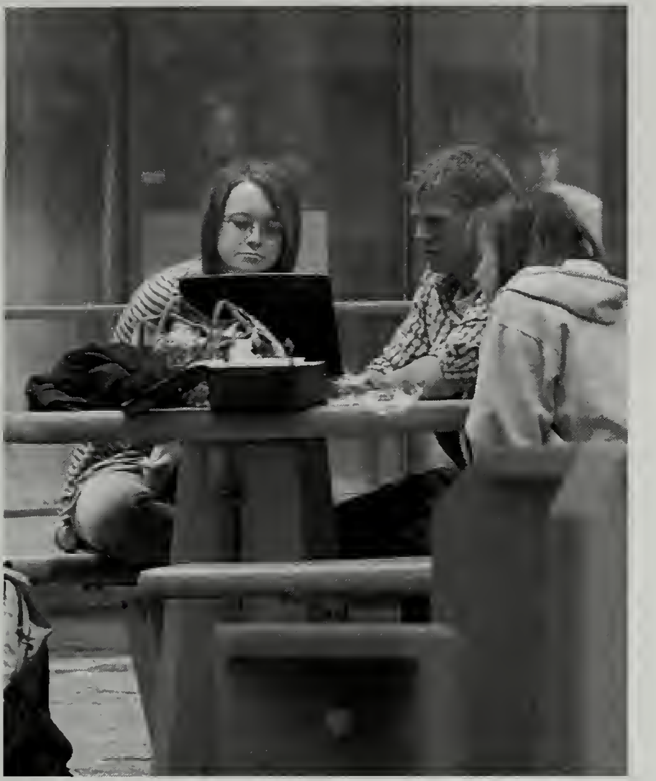
April	
11–May 31	On-Line Registration via the web
begins April 18	Walk-in/Mail-in/Phone-in Registration for summer sessions I and II are accepted Sanders Administration Building, 8:00 a.m.–6:30 p.m. Mon.–Thurs.; 8:00 a.m.–5:00 p.m. Fri. To register by phone, call 978-665-4196 (MasterCard, Discover, American Express and VISA ONLY—Charge must be over $50.00)
May	
1–31	Registration (cont.)
17	Late Registration begins for summer session I. Registrations and course changes accepted prior to the second class meeting. (Class meeting defined as 2.5 hours)
30	Memorial Day—NO CLASSES.
31	First day of classes for summer session I.
June	
30	Final day of classes for summer session I.

Summer Session II/ July 11–August 12, 2011

April	
11–June 30	On-Line Registration via the web
begins April 18	Walk-in/Mail-in/Phone-in Registration for summer sessions I and II are accepted Sanders Administration Building, 8:00 a.m.–6:30 p.m. Mon.–Thurs.; 8:00 a.m.–5:00 p.m. Fri. To register by phone, call 978-665-4196 (MasterCard, American Express, Discover and VISA ONLY—Charge must be over $50.00)
June	
1–30	Registration (cont.)
27	Late Registration begins for summer session I. Registrations and course changes accepted prior to the second class meeting. (Class meeting defined as 2.5 hours)
July	
4	Independence Day—NO CLASSES.
11	First day of classes for summer session II
Aug.	
12	Final day of classes for summer session II

Calendar Subject to Change

OUR COMMITMENT TO YOU



Institutional Accreditations, Approvals, Memberships, and Affiliations

Accreditations

Fitchburg State University is accredited by the New England Association of Schools and Colleges, Inc.; ABET, Inc the Commission on Collegiate Nursing Education; the International Assembly for Collegiate Business Education; the Council for Standards in Human Service Education and the National Council for Accreditation of Teacher Education.

The New England Association of Schools and Colleges is a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering postgraduate instruction.

Accreditation by the New England Association assures that the institution:

- Meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process
- Maintains the necessary resources to achieve its stated purposes through appropriate educational programs and gives reasonable evidence that it will continue to do so in the foreseeable future
- Maintains its demonstrated institutional integrity

Inquiries regarding the status of an institution's accreditation by the New England Association of Schools and Colleges should be directed to the administrative staff at the university or to the association at:

Commission on Higher Education
New England Association of Schools and Colleges
The Sanborn House, 15 High Street
Winchester, MA 01890
(617) 729-6762

Addresses for other accrediting agencies include:

ABET, Inc., (Accreditation Board for Engineering and Technology)
111 Market Place Suite 1050
Baltimore, MD 21202
(410) 825-7700
www.abet.org

Commission on Collegiate Nursing Education
One Dupont Circle, NW
Suite 530
Washington, D.C. 20036-1120
(202) 887-6791

The Council for Standards in Human Service Education
PMB 703
1050 Larrabee Ave, Suite 104
Bellingham, WA 98225-7367
www.cshe.org

International Assembly for Collegiate Business Education
P.O. Box 25217
Overland Park, KS 66225
(913) 631-3009

The National Council for Accreditation of Teacher Education NCATE
2010 Massachusetts Ave, NW, Suite 508
Washington, D.C. 20036
(202) 466-7496
www.ncate.org

Approvals

- The Massachusetts Department of Elementary and Secondary Education and the National Association of State Directors of Teacher Education and Certification
- The Interstate Certification Compact in Certification of Educational Personnel
- The Massachusetts Board of Registration in Nursing
- Board of Higher Education, Commonwealth Honors Program

Institutional Memberships

- American Association of Colleges of Teacher Education
- The College Entrance Examination Board
- The Massachusetts Association of Colleges of Nursing and the American Association of Colleges of Nursing
- The American Association of State Colleges and Universities and the International Association of Colleges and Universities
- The American Council on Education
- The New England Association of College Admissions Counselors and the American Association of Collegiate Registrars and Admissions Officers
- The Council of Colleges of Arts and Sciences
- The Council of Graduate Schools
- University Continuing Education Association

Affiliations

McKay Campus School

The McKay Campus School serves as the Teacher Education Center at Fitchburg State University, as well as a K-4 Public Elementary School and a 5-8 middle school arts academy Pilot School for the city of Fitchburg. This dual mission adds a uniqueness to the teaching and learning atmosphere at McKay. This collaboration with higher education is a partnership that brings professionals together in our school setting to share:

- responsibility for the preparation of new teachers,
- the professional development of experienced classroom teachers,
- the professional development of university faculty serving as teacher educators,
- the support of research directed at improvement of practice, and
- enhanced student learning for our elementary students.

The McKay Campus School and Fitchburg State University have a shared understanding of and commitment to learning for children and adults. This culture of learning is one that values risk-taking, inquiry, reflection and collegiality. This community has children at its core and encompasses school and university faculty, parents and members of the wider community of Fitchburg and its surrounding towns.

Servicemembers Opportunity College

Fitchburg State University is a fully-approved Service Opportunity College member. The SOC principles and criteria subscribed to by all member institutions provide the basis for a consistent and uniform approach to meeting the educational goals and special needs of military personnel. The coordinator of records and registration services serves as the counselor for this important program.

The Washington Center

Fitchburg State University offers students the opportunity for semester-long internships at the Washington Center in Washington, D.C. For information contact Dr. Paul Weizer, (978) 665-3272.

Universitywide Policies

Affirmative Action Policy

It is the policy and commitment of Fitchburg State University not to discriminate on the basis of race, color, religion, creed, age, gender, sexual orientation, gender identity, genetic information, disability, veteran status, marital status, or national origin in its educational programs, activities, admissions, or employment policies, and to comply with the requirements of Federal Executive Orders 11246 and 11375 as amended, the Civil Rights Act of 1964 as amended, Title IX of the Educational Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Section 402, Vietnam Era Veterans Readjustment Assistance Act of 1974, the Civil Rights Restoration Act of 1988, the Americans with Disabilities Act of 1990 (ADA), the Civil Rights Act of 1991, and pertinent laws, regulations, and Executive Orders, directives of the Board of Higher Education of the Commonwealth of Massachusetts, and other applicable state and federal statutes.

Inquiries concerning the application of, or compliance with, the laws and regulations prohibiting such discrimination should be addressed to:

Jessica Murdoch, Director, Human Resources and Affirmative Action,
Designated Coordinator for Title IX, Section 504 and Title II of the ADA
(978) 665-3172.

For inquiries regarding sex, gender, disability, age, race, color and/or national origin, you may also contact:

U.S. Department of Education
Office for Civil Rights/ED
5 Post Office Square, 8th Floor
Boston, MA 02109-3921
Telephone: (617) 289-0111
FAX: (617) 289-0150
TDD: 877-521-2172
E-mail: *OCR.Boston@ed.gov*

Sexual Harassment Policy

It is against the policy of Fitchburg State University for any member of the university community, male or female, to sexually harass another employee or student. The university is committed to providing a working, living, and learning environment that is free from all forms of abusive, harassing, or coercive conduct. This policy seeks to protect the rights of all members of the university community (faculty/ librarians, administrators, staff, and students) to be treated with respect and dignity.

Sexual harassment consists of unsolicited verbal, non-verbal, and/or physical conduct, which has the effect of interfering with student or employment status or of creating an intimidating, hostile, or offensive environment. The university's Affirmative Action Grievance Procedures will serve as a system of review and resolution for both formal and informal complaints.

Institutional Discrimination Complaint Procedures

The Massachusetts State Universities have established specific internal discrimination complaint procedures to help resolve claims and complaints of discrimination on the campus. These procedures will serve as a system of review and resolution for both informal claims and formal complaints of discrimination. Any member of the university community and/or any applicant for employment who believes they have been a victim of discrimination, discriminatory harassment or retaliation may initiate an informal claim or formal complaint as outlined in the discrimination complaint procedures.

Hard copies of the discrimination complaint procedures are available in the Human Resources and Affirmative Action Office. The discrimination complaint procedures are also available at: *www.fitchburgstate.edu/humanres/aaeop.cfm*.

Further advice or information regarding the university's discrimination complaint procedures may be obtained by contacting Jessica Murdoch, Director, Human Resources and Affirmative Action, and Designated Coordinator for title IX, Section 504 and Title II of the ADA, at (978) 665-3172.

Privacy and Confidentiality Regulations

A Fair Information Practices Act (FIPA) administrator directs the Privacy and Confidentiality Regulations. Copies of the regulations as part of FIPA Chapter 766 (of the Acts of 1965) are posted on bulletin boards at the university and kept on file at the Registrar's Office.

Students should note that if any of these regulations should conflict with applicable provisions of the Federal Privacy Act of 1974 as amended, or with any regulations promulgated pursuant to said act, the provisions of said federal act or federal regulations shall control.

Institutional Review Policy

The university has established an Institutional Review Board and Institutional Review Policy which reviews and approves the adequacy of protection provided for human subjects serving as research subjects. The university is cognizant of its responsibility to protect the privacy, safety, health, and welfare of such subjects. A copy of this policy may be obtained in the Office of Academic Affairs and on the Grant Center Web site at *www.fitchburgstate.edu/grantctr*.

Drug-Free Environment

Fitchburg State University is in compliance with the Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendment of 1989. Information regarding these acts and the university's compliance with them is distributed to the university community yearly and is also available from the director for human resources at (978) 665-3172.

Alcohol Policy

Fitchburg State University enforces all state laws and city ordinances regarding the possession, use, and sale of alcoholic beverages including those prohibiting drinking by individuals under 21 years of age. University policy restricts when, where, and how alcohol may be served and the amount of alcohol that a resident student may bring into the residence halls.

The Fitchburg State University community recognizes the importance of personal and communal responsibility with regard to its alcoholic beverage policy. It assumes that any student who has consumed alcohol accepts responsibility for their consequent behavior. Being intoxicated will not be accepted as an excuse for erratic, irresponsible behavior either to an individual or others' person or property. Any student found to be intoxicated will be considered in violation of the Alcohol Policy and will be subject to the Student Discipline System.

Massachusetts law forbids the possession of, use, and sale of alcoholic beverages to persons under 21 years of age. The law also forbids falsifying age and identification cards. The university enforces the law and expects all students, faculty, administrators, and staff to abide by it.

Use or possession of alcoholic beverages in public areas (campus grounds, athletic events, parking lots, academic buildings, dining hall, Campus Center) regardless of age, except at approved functions, is prohibited. Open containers of any alcoholic beverage is a violation of this policy.

A complete copy of the Alcohol Policy is available in the Undergraduate Student Handbook or from the Office of Student and Academic Life.

Substance Abuse Policy

In accordance with the Drug-Free Schools and Communities Act, Fitchburg State University has adopted the following Substance Abuse Policy:

> Only in an environment free of substance abuse can the university fulfill its mission of developing the professional, social, cultural, and intellectual potential of each member of its community. The use of illicit drugs and alcohol impairs the safety and health of students and employees, inhibits personal and academic growth and undermines public confidence in the university. For these reasons, it is the policy of Fitchburg State University that all university activities and university property shall be free of the unlawful use of drugs and alcohol.

Prohibited Conduct

The students and employees of Fitchburg State University shall not unlawfully manufacture, distribute, dispense, possess, or use controlled substances or alcohol. Any individual who violates this prohibition will be subject to disciplinary action. Sanctions may include expulsion or firing from the university, mandatory participation in an alcohol/drug abuse assistance or rehabilitation program, as well as referral of the matter to law enforcement agencies for prosecution.

Students and employees are required to notify the Human Resources Office (and, in the case of students, the director of financial aid) within five days of being convicted of violating a criminal drug statute in the workplace.

A complete copy of the Substance Abuse Policy is available in the Undergraduate Student Handbook or from the Office of Student and Academic Life.

No Smoking Policy

Effective July 1, 1994, Fitchburg State University became a smoke-free environment. Smoking is not allowed inside any university building, including residence halls.

Those members of the university community who have special difficulties in complying with a smoke-free environment are urged to seek the assistance of either the Human Resources Office or the Health Services Office.

Inclement Weather Policy

Whenever inclement weather, usually in the form of snow and/or ice, makes driving conditions exceptionally hazardous, classes for that day will be cancelled. In the event that day classes (on-campus and/or off-campus sites) are cancelled, all evening classes and programs for that date are automatically cancelled. Make up sessions are required.

Cancellation announcements can be heard on:

WPKZ	1280 AM	Fitchburg
WXLO	104.5 FM	Fitchburg/Worcester
WBZ Storm Center	1030 AM, TV News 4	Boston
WCVB-TV5		Boston
WHDH-TV News 7		Boston
WXPL	91.3 FM	Fitchburg State College Campus Radio (after 8 a.m.)

Announcements are also sent through the ConnectEd system; enter your contact information into *blackboard.fitchburgstate.edu* to be notified of any school cancellation/delay. You may also call (978) 665-3006 (residence students), or (978) 665-4003 (off-campus, commuter students). Course cancellations also appear on *www.fitchburg state.edu*.

The decision to cancel classes scheduled for weekends or holidays rests with the instructor. Students should consult with their instructors for their class cancellation and make-up policies.

Technology: Acceptable Use Policy

The Technology Department supports information systems and electronic resources for the faculty, staff and students at Fitchburg State University. Computer facilities and services are provided to support University business and its mission of education, research and public service. Uses that threaten the integrity of the system, privacy or safety of others or are illegal are forbidden. This policy sets guidelines regarding the issues of privacy and respect for property, ownership of data, system security, and misuse of the system.

The complete Acceptable Use Policy, and other Technology policies, can be found on our Web site at *www.fitchburgstate.edu/technology/policies*.

Technology: Residential Network Usage Policy

The residential network at Fitchburg State University allows students residing in University resident halls and apartments to access network resources from their room. This policy identifies specific activities that are prohibited and details support options for our students. The complete Residential Network Usage Policy, and other Technology policies, can be found on our Web site at *www.fitchburgstate.edu/technology/policies*.

Syllabus Guidelines/Course Information

Prior to the end of the first week of the semester, the instructor will distribute to each student in each course and section a written and dated course syllabus, which must contain at least the following information:

- The instructor's name, discipline, course number and title, semester/days/time of class, office location, office hours, email address and telephone number
- Official course description
- Course goals and learning objectives, as defined by the instructor
- The instructor's attendance and/or participation policies for the course (e.g. no attendance taken, number of absences allowed, any penalty for extensive absence, etc.)
- A list of texts and/or additional resources such as software for the course, indicating which are required and which are optional
- The course requirements for assessment, such as papers, projects, and examinations (with due dates if possible)
- A statement regarding whether the instructor will include a final and the form that final will take (e.g. exam, project report, presentation, etc.)
- A list of topics to be covered and the activities expected from the students
- The method by which a student's final grade in the course will be determined
- The instructor's policy on work handed in late and makeup examinations
- Any special rules, regulations, or procedures of the course
- A statement indicating each student is responsible for completing all course requirements and for keeping up with all activities of the course (whether a student is present or not)
- A statement regarding the University Academic Integrity Policy
- An informational statement about disability services available to students

Waiver of Academic Regulations

The university acknowledges that extenuating circumstances relative to rules, regulations, and programs occasionally require a waiver of regulations. Although students may petition for a waiver, they should understand that the justification for a waiver should be as exceptional as the granting of one.

Petitions for a waiver of regulations begin with the dean of student and academic life and/or dean of education or dean of graduate and continuing education.

The provisions of this catalog are not to be regarded as an irrevocable contract between the university and its students.

Notice of Catalog Changes

The rules, regulations, policies, fees and other charges, courses of study, and academic requirements that appear in this catalog were in effect at the time of its publication. Like everything else in this catalog, they are published for informational purposes only, and they do not constitute a contract between the university and any student, applicant for admissions or other person.

Whether noted elsewhere in this catalog or not, the university reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees and other charges, courses of study and academic requirements. Whenever it does so, the university will give as much advance notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

Notice of Availability

The Higher Education Amendments of 1998 clarified the information that universities must disclose to current students. The following Notice of Availability describes the kinds of information available and where you can gain access to it. You may request a paper copy of any information referenced below by contacting the office listed.

Family Educational Rights and Privacy Act (FERPA)

Description: FERPA is a federal law governing the privacy and disclosure of student information
Location: *www.fitchburgstate.edu/registrar*
Contact: Registrar
E-mail: *registrar@fitchburgstate.edu*
Phone: (978) 665-4196

FFEL/Direct Loan Deferments for Performed Services

Description: FFEL/Direct Loan deferments available for Peace Corps or volunteer service
Location: *www.fitchburgstate.edu/finaid*
Contact: Director of Financial Aid
E-mail: *finaid@fitchburgstate.edu*
Phone: (978) 665-3156

Financial Assistance Available

Description: Federal, state and institutional need-based and non-need based financial assistance available to students. Rights and responsibilities of financial aid recipients are also available
Location: *www.fitchburgstate.edu/finaid*
Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Director of Financial Aid
E-mail: *finaid@fitchburgstate.edu*
Phone: (978) 665-3156

Cost of Attendance

Description: Cost of attendance for undergraduate day students
Location: *www.fitchburgstate.edu/studentaccts*
Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Director of Student Accounts
E-mail: *stuaccnts@fitchburgstate.edu*
Phone: (978) 665-4126

Cost of Attendance—GCE

Description: Cost of attendance for undergraduate evening and graduate students
Location: *www.fitchburgstate.edu/gce*
Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Dean of Graduate and Continuing Education
E-mail: *gce@fitchburgstate.edu*
Phone: (978) 665-3182

Return of Title IV Funds Refund Policy

Description: Policy regarding recipients of federal Title IV financial aid that withdraw from the College
Location: *www.fitchburgstate.edu/finaid*
Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Director of Financial Aid
E-mail: *finaid@fitchburgstate.edu*
Phone: (978) 665-3156

Withdrawal Policy

Description: Policy regarding students enrolled at Fitchburg State University who officially withdraw from the College
Location: Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Dean of Student and Academic Life
Phone: (978) 665-3130

Academic Programs

Description: Information regarding Fitchburg State University's academic programs
Location: *www.fitchburgstate.edu/academics*
Fitchburg State University Undergraduate and Graduate Course Catalog
Contact: Registrar
E-mail: *registrar@fitchburgstate.edu*
Phone: (978) 665-4196

Accreditation/Approval/Licensure

Description: Entities that accredit, license, or approve the university and its programs and procedures for reviewing Fitchburg State University's accreditation, licensing, or approval documents

Location: *www.fitchburgstate.edu/aboutus*, click on Facts and Figures

Contact: Vice President for Academic Affairs

Phone: (978) 665-3185

Special Facilities and Services for Students with Disabilities

Description: Special services and facilities available for students with disabilities

Location: *www.fitchburgstate.edu/disability*

Contact: Office of Disability Services

E-mail: *jmaki@fitchburgstate.edu*

Phone: (978) 665-3562

Study Abroad

Description: Federal Title IV financial aid eligibility for students enrolled in a Study Abroad program

Location: *www.fitchburgstate.edu/finaid*

Contact: Director of Financial Aid

E-mail: *finaid@fitchburgstate.edu*

Phone: (978) 665-3156

Completion/Graduation Rates

Description: The percent of first-time full-time freshmen who successfully complete a baccalaureate program at this university within six years

Location: *www.fitchburgstate.edu/planningandir*

Contact: Director of Institutional Research

E-mail: *tcarroll@fitchburgstate.edu*

Phone: (978) 665-3171

Title II Institutional Report

Description: Required annual report on the number of undergraduate and graduate students who complete the university's initial licensure programs, as well as additional information on the state of the university's education preparation program

Location: *www.fitchburgstate.edu/edcert*

Contact: Dean of Education

Phone: (978) 665-3501

Campus Security Report

Description: The Department of Public Safety/Campus Police Annual Security Report which includes required policies and procedures and crime statistics

Location: *www.fitchburgstate.edu/campuspolice*

Contact: Director of Public Safety/Chief of Police

Phone: (978) 665-3584

Report on Athletic Program Participation Rates and Financial Support Data

Description: Data regarding athletic program participation rates of students at Fitchburg State University and related costs and revenues

Location: Athletics Department

Contact: Director of Athletics

E-mail: *slauder@fitchburgstate.edu*

Phone: (978) 665-3314

Report of Harassment/Discrimination

Location: *www.fitchburgstate.edu/humanres/aaeop.cfm*

Contact: Director of HR/AA

E-mail: *jmurdoch@fitchburgstate.edu*

Phone: (978) 665-3172

Students who seek a quality education are invited to apply for admission to Fitchburg State University. Fitchburg State welcomes applications from high school graduates, students returning to college after a hiatus, transfer students, and international students. After careful review of the application and supporting materials, admission is offered to students whose secondary school and/or university records and backgrounds offer the promise of a successful and satisfying undergraduate experience.

Undergraduate Admissions

Admission Standards

Fitchburg State University is committed to providing excellent, accessible, and affordable lifelong learning opportunities in undergraduate, graduate and continuing education. The university seeks students who are motivated to achieve academic excellence, and who represent a broad variety of backgrounds and interests.

With the guiding principles of quality, access and diversity in mind, Fitchburg State has adopted admission standards which support the standards established by the Commonwealth of Massachusetts. These standards provide a framework for the individual evaluation of each applicant to the university.

Campus Visits

The admissions staff encourages all applicants to visit the Fitchburg State University campus. A variety of visitation programs, including student guided tours, are available to people interested in learning more about the university and its programs. For up to date information on visitation options, please visit our website at *www.fitchburgstate.edu/admissions*.

Interviews are not required, but can provide the Admissions Committee with helpful information. Applicants who desire to have an interview are invited to call the Admissions Office for an appointment.

Admissions Office Hours

Monday-Thursday: 8 a.m. to 6:30 p.m.
Friday: 8 a.m. to 5 p.m.

Student Guided Tours
Monday–Friday at 11:30 a.m. and 2:30 p.m.

For information about open house programs, individual interviews, other visitation options and to receive admissions materials contact the Admissions Office at:

Admissions Office
Fitchburg State College
160 Pearl Street
Fitchburg, MA 01420-2697
Telephone: (978) 665-3144
E-mail: *admissions@fitchburgstate.edu*
Web site: *www.fitchburgstate.edu/admissions*

Graduate admission information is located in the graduate division section of the catalog.

Application Filing Dates

All materials should be submitted as early as possible. Recommended filing dates for the fall and spring semesters are listed below. Applicants to the film, video, and nursing programs should contact the Admissions Office for information regarding earlier application deadlines.

Fall Semester

First Year Students: March 1

Transfer Students: April 15

Spring Semester

First Year Students: December 1

Transfer Students: December 1

Fitchburg State University employs a rolling admissions policy. Applications are reviewed and admission decisions are made as files become complete. We notify students on a continuous basis, beginning in early December for September applicants.

There are no deadlines for applications to evening programs, which are accepted year-round.

Application Procedure

Application Procedures—First-Time University Students

To be considered for admission to the university, applicants must submit the following to the Office of Admissions:

- A completed **Application for Admission and application fee**
- **Official high school transcript** including first-quarter senior year grades. Applicants who have completed a GED should also submit official test results.

Secondary School Preparation

- Applicants are required to complete a minimum of 16 college-preparatory units in the following disciplines. (A unit is equivalent to one full school year of study)
    - English: 4 units
    - Mathematics: 3 units (includes: Algebra I, Algebra II, Geometry/Trigonometry, or comparable coursework)
    - Science: 3 units (includes 2 units of laboratory science)
    - Social Science: 2 units (includes one unit of U.S. History)
    - Foreign Language: 2 units (one language)
    - University Preparatory Electives: 2 units (from the above disciplines, or from the arts, humanities or sciences)
- Additional work in the math and sciences is strongly recommended, particularly for students intending to major in the sciences or nursing
- If an applicant graduated from a high school that did not offer the required academic units and that high school has received a waiver from the Board of Higher Education, the applicant may substitute other university preparatory electives.

Students submitting the GED must also submit a high school transcript reflecting work completed while attending high school.

- Official **SAT** or the **ACT*** scores.
  *Applicants with documented learning disabilities are exempt from taking any standardized university entrance aptitude test for admittance to any public institution in Massachusetts (M.G.L. Chapter 15A, Sec 30)
- **A 300 word essay** describing educational goals and motivation to go to university.
- Letters of recommendation, while not required, are helpful in the evaluation process and are strongly recommended for applicants to the nursing and film/video programs.
- A resume of activities if time has lapsed between the time of high school graduation and the application process to Fitchburg State University.

Applications are reviewed as they become complete and on a continuous basis, beginning in early December for September applicants.

Acceptance to Fitchburg State University is contingent upon graduation from high school or equivalent preparation (GED). Students who attend public high schools in Massachusetts and intend to enroll at Fitchburg State University must meet the state standards for the competency determination (measured by the MCAS tests or Performance Appeals Process in English language arts and mathematics) as well as local graduation requirements.

The Admissions office will provide your SAT scores to the Placement Test Center. Students who have a critical reading SAT score between 500 and 599 (or English Act between 21 and 26) are exempt from taking the Reading placement test. Also, students who have a critical reading SAT score of 600 or above (ore Act of 27) are exempt from the Reading and Writing placement tests. Students who have earned a score of 3.0 or better on the Advanced Placement (AP) English Examination are exempt from the reading and writing placement exams.

Most transfer students have college credits for Writing I and therefore do not need to complete the Reading Comprehension or Essay Placement exams. However, transfer students must take the Algebra test if a math course is needed to meet graduation requirements. Transfer Nursing students are required to pass the Algebra placement Test even if they have transferred in the required Applied Statistics course. Students who have college level transfer credit for Calculus I or higher are exempt from taking the Algebra placement test. Also, students who have transferred mathematics courses that will satisfy the graduation requirement for their major are not required to take the Algebra Placement Test.

Application Procedures— Special Admissions Applicants

Applicants with documented learning disabilities or English as a Second Language (ESL) backgrounds, or who are graduating from vocational-technical schools may be eligible for application requirement exception allowances. These exceptions reflect the minimum admission standards as stated by the Massachusetts Board of Higher Education. **Meeting minimum standards for admission does not guarantee admission for any applicant.**

English as a Second Language applicants must complete the 16 required university preparatory courses with two exceptions:

- ESL applicants may substitute up to two university preparatory electives for the two required foreign language courses, and
- ESL applicants may substitute up to two years of university preparatory ESL English courses for university preparatory English courses, provided they achieve a 213 on the computer-based Test of English as a Foreign Language test (TOEFL). ESL students must meet all other admission standards for first-time university students, including SAT or ACT requirements.

Declaring a disability at the time of application and supplying complete documentation is voluntary. Applicants who present documentation supporting a professionally diagnosed learning disability are exempt from taking standardized college entrance aptitude tests for admittance to any public institution in the Commonwealth (M.G.I. Chapter 15A, Sec. 30). Such students, however, must complete the 16 required college preparatory courses with the following exception:

- An applicant may substitute two college preparatory electives for the two required foreign language courses if the applicant presents an Individual Education Plan (or the equivalent under Chapter 766 or Chapter 344) and the results of a psycho-educational evaluation completed within the past three years that provides a specific diagnosis of a language based learning disability. For a full description of documentation requirements, visit *www.fitchburgstate.edu/disability*.

Vocational-technical students must complete 16 college preparatory courses, distributed in the same manner and with the same minimum grade point averages required of other high school graduates, with the following exceptions:

- Two vocational-technical courses may be used to fulfill the two required electives.
- Vocational-technical high school graduates who do not complete the two required college preparatory foreign language courses must complete an additional elective college preparatory course, for a total of three such courses, and satisfy one of the following: one Carnegie unit of a foreign language, a fourth Carnegie unit of mathematics or science, or one Carnegie unit of computer science.

Meeting minimum standards for admission does not guarantee admission for any applicant.

Application Procedures— International Students

Fitchburg State University seeks a culturally diverse campus and welcomes applications from students from other countries. Students on F-1 or J-1 visas must study on a full-time basis and are not eligible for state or federal financial aid.

International students must complete their applications by the deadlines listed below. The Admissions Office cannot guarantee that students completing applications after the published deadline will receive an admission decision in time to process visa requests. Accordingly, late applications may be deferred a semester at the discretion of the Admissions Office.

• Fall Semester deadline:	July 15
• Spring Semester deadline:	December 1

In addition to the basic admissions requirements for new and transfer students, international students must submit and/or meet the additional requirements listed below:

- International Application Supplement
- Test of English as a Foreign Language (TOEFL). This test is required of all international applicants with the exception of those who have earned a high school, associate's, bachelor's, or master's degree from an institution in the United States or applicants from Great Britain, Ireland, Australia, or Canada. The minimum passing test score is 550 (paper-based test), 213 (computer-based test) and 79 (Internet-based test). Official score results must be sent from the testing agency to the Admissions Office and must be dated within the past five years. For more information about the TOEFL test, please visit *www.toefl.org*
- Transcripts
- Fitchburg State University only accepts official transcripts that are signed and stamped
- All international students must have their foreign transcripts evaluated (For evaluation of your transcripts, go to the Center for Educational Documentation Web site: *www.cedevaluations.com*)
- If your transcripts are not in English, they must be translated. (If you need to translate your transcripts to English, please go to the International Documentation Center Web site: *www.eurasiacom.com*)
- F-1 and J-1 applicants only: If you plan to study at Fitchburg State University under an F-1 or J-1 visa status, you must submit the appropriate financial documentation with your application for admission. Please refer to the Application for International Admission for more details
- Photocopies of all previous I-20s (front and back)
- Photocopies of your passport and visa, if you are currently in the United States
- Photocopy of I-94 form (front and back), if you are currently in the United States
- Application fee ($40 non-refundable)

Application Procedures— Non-Traditional Students

A non-traditional student is a student who does not enter college immediately after completing high school. Generally the student has experience in a career, at home, or in the military.

Admissions requirements are similar to those of any new student including:

- High school transcript and/or GED
- SAT or ACT scores if student has been out of high school for three or less
- Letters of recommendation
- Resume of activities showing life experience

Part-Time Non-Degree Seeking Students

A non-degree seeking student is a high school graduate who is not applying for a degree program but wishes to enroll in university courses. These students may enroll in a maximum of three courses or 11 credits per term. Registration for non-degree seeking students is scheduled after the degree-seeking students have registered. Non-degree seeking students (those not enrolled in degree or certificate programs) may take courses for which they have fulfilled any specified prerequisites.

Leadership Academy Honors Program Applicants

The university encourages academically talented students to consider the university's Leadership Academy honors program. The Leadership Academy is characterized by the following:

- A program for our academically strongest students with leadership potential or experience
- Weaves themes of leadership into a separate core liberal arts and sciences curriculum
- Collaborative teaching and learning model
- Extensive co- and extra-curricular options
- Emphasis/commitment to the community; service learning

Admission to the Leadership Academy is selective, based on several factors including: grade point average, SAT scores, and participation in honors and advanced placement courses. The selection committee also considers letters of recommendation, history of community service, extracurricular interests, and other activities that demonstrate leadership potential. A separate application is not required.

Alternate Admission Programs

The university supports alternate admission programs for students who either do not meet the admission criteria established for Massachusetts state universities or have non-traditional backgrounds: the Fitchburg State University/ Mount Wachusett Community College Institute and the Summer Bridge Program. Both programs require students to submit the regular application for admission; no additional application is required. For more information on these programs, please contact the Admissions Office.

The Fitchburg State University/Mount Wachusett Community College Institute

The Institute is a collaborative program sponsored by Mount Wachusett Community College and Fitchburg State University to serve the needs of a select group of students who demonstrate the potential to succeed at a four-year residential university but who currently do not meet the admission standards set forth by the Massachusetts Board of Higher Education. The institute provides the opportunity for students to begin their college coursework at Mount Wachusett Community College while living on the Fitchburg State University campus. At the conclusion of each semester, Fitchburg State University evaluates institute students' Mount Wachusett Community College transcripts; if students meet the transfer requirements they are eligible to matriculate at Fitchburg State the next semester.

Students enrolled in the Institute benefit from Fitchburg State University and Mount Wachusett Community College's long-standing tradition of collaboration, articulation agreements, close proximity to each other, a shared regional transportation system, and a commitment to support students' academic, co-curricular, and social development. Participants in the institute are required to live on campus. Institute students receive:

- On-campus housing at Fitchburg State College
- Coordinated academic advising
- Coordinated academic assessment
- Coordinated orientation programming
- Access to selected student activities on both campuses (while students are enrolled at Mount Wachusett Community College they are not eligible for intercollegiate athletics or elected office in student government at Fitchburg State College)
- Complete access to all student support services at both colleges

The Summer Bridge Program

The Summer Bridge Program is designed to provide educational opportunities for recent high school graduates who demonstrate the potential to succeed at a four year university, but who currently do not meet the admission standards set forth by the Massachusetts Board of Higher Education. The program provides supportive services and academic preparation for a select group of students who are conditionally accepted to the university. Students participate in a drive-in program that meets four days a week for five weeks in July and August. The eight university credit program includes:

- Literacy and writing instruction based on placement test performance
- Mathematics readiness instruction based on placement test performance
- Academic transition seminars, activities and experiences regarding learning strategies, study skills, time management, tutoring and related topics
- The opportunity to complete one LA&S (general education) course
- Exposure and contact with the variety of academic support services available at the college

Students who complete the Summer Bridge Program with a minimum 2.0 grade point average and the recommendation of the Summer Bridge coordinator will be fully admitted to the university in the fall term.

Transfer Admissions

Application Procedures—Transfer Students

Transfer students who want to be considered for admission to the university must meet the following criteria:

- A grade point average of 2.0 or better with 24 or more transferable credits from a regionally accredited college or university **or** a 2.5 or better with 12 to 23 transferable credits. Having such an average, however, does not guarantee admission to the university.
- If a prospective student has 23 or fewer transferable credits and a GPA between 2.5 and 2.0, the student's high school work must satisfy admission requirements for first-year students.

The following credentials must be submitted:

- An official completed **Application for Admission and application fee**
- **Official transcripts** from all previously attended colleges
- **A 300-word essay** describing your educational goals and motivation to go to college
- A final **high school transcript.** Applicants who have completed a GED should also submit official test results. Transfer applicants who have earned an associate's degree are not required to submit high school or GED information.
- **Official SAT and/or ACT test scores for applicants who are subject to first-year admission standards, and have been out of school three years or less** (see above)

Evaluation of Credit

The amount of credit that will transfer into a Fitchburg State University program is determined after an applicant has been accepted to the university. Transfer credit is normally granted for courses completed at regionally accredited colleges and universities, for which the student received a 2.0 (C) or better, and which correspond with those offered at Fitchburg State University. Courses which do not fit the degree program may be counted as fulfilling the free elective requirements of the four-year curriculum.

Students transferring from two-year institutions will be entitled to a maximum of two years of credit (60 semester hours). Students transferring from baccalaureate level institutions may be entitled to more, but they may not transfer more than 50% of the total credit hours required in their major. They also must complete a minimum of 45 credit hours in residence in order to receive a degree from Fitchburg State University.

The grade point average from previously attended colleges and universities is dropped, and a new GPA is established, reflecting the student's performance while matriculating at Fitchburg State University.

For some transfer students, the requirements and provisions of the Commonwealth Transfer Compact apply. The complete text of the Compact is printed following this section.

Joint Admissions

Students enrolled in Massachusetts community colleges may seek joint admission to Fitchburg State University. Such a student must complete an associates degree in an approved transfer program, which enables them to continue their education at Fitchburg State University. Requirements for joint admissions are:

- Completed associate's degree with 2.5 average in an approved transfer program
- Approval of the appropriate academic department
- Presentation of appropriate credentials

MassTransfer Compact

May 2009

Chapter 15A, Section 9 (v) of the General Laws of Massachusetts includes within the powers and duties of the Board of Higher Education to "develop and implement a transfer compact for the purpose of facilitating and fostering the transfer of students without the loss of academic credit or standing from one public institution to another."

In June 2008, the Board of Higher Education accepted the Final Report from the Commonwealth Transfer Advisory Group which included a new statewide transfer policy: *MassTransfer*. *MassTransfer* seeks to provide a broad population of students with straightforward and understandable options toward the completion of associate and baccalaureate degrees, clearing the way for student access and student success in Massachusetts' public higher education system.

MassTransfer has two main purposes:

- to provide community college students who complete approved associate degrees under *MassTransfer* with the benefits of the full transfer and applicability of credit, guaranteed admission, and a tuition discount (each benefit based on the student's final grade point average) to linked baccalaureate programs; and
- to provide any student in the Massachusetts public higher education system the intermediate goal of completing a portable transfer block (**"*MassTransfer Block*"**) which satisfies general education/distribution/core requirements across institutions (with the receiving institution able to add no more than six additional credits/two courses).

MassTransfer integrates and replaces the Commonwealth Transfer Compact, Joint Admissions, and the Tuition Advantage Program as of fall 2009. Community college students who matriculated prior to fall 2009 and who choose to continue in the Commonwealth Transfer Compact and/or Joint Admissions Program will be required to complete their associate degrees by August 2013 and must matriculate at a Massachusetts state college or University of Massachusetts campus by fall 2014.

Students matriculating in fall 2009 as well as currently enrolled students may accumulate courses leading toward the completion of an approved associate degree under *MassTransfer* or the *MassTransfer Block*. The policy benefits will apply to students who complete either an approved associate degree or the *MassTransfer Block* beginning fall 2010, regardless of initial date of enrollment.

A student seeking readmission as a matriculated student to an institution previously attended—whether on a full-time or part-time basis—is held to the receiving institution's readmission policies. However, if eligible for readmission, the receiving institution is strongly encouraged to honor the *MassTransfer* policy.

See *MassTransfer* Web site at ***www.mass.edu/masstransfer***.

The Elementary Education Compact

For students transferring from Massachusetts community colleges to public colleges and universities offering elementary education licensure at the baccalaureate level who agree to the compact.

Section I. Requirement for Elementary Education Compact Status

A student shall be eligible for Elementary Education Compact status if they have met the following requirements:

- Completed an associate degree with a minimum of 60 credit hours exclusive of developmental coursework;
- Achieved a minimum cumulative grade point average of not less than 2.75 (in a 4.0 system) (Note: at their discretion, individual institutions may require a different grade point average);
- Completed the following 44-59 credit core, exclusive of developmental coursework. The core is designed to meet the requirements of both the Commonwealth Transfer Compact, and the Department of Elementary and Secondary Education's regulations (see Section 7.05:1.b and Section 7.06:7.b of the *Regulations for Educator Licensure and Preparation Program Approval ("Regulations")*.).

Composition/Writing	*6 credits*
**Humanities and Social Science (9 credits of each)*	*18 credits*

In addition, students must select courses that meet the following Department of Elementary and Secondary Education core content knowledge areas, bearing in mind that competency must be demonstrated in all these areas on the General Curriculum Test of the Massachusetts Test for Educator Licensure (MTEL). Students are required to complete coursework in these areas at both the lower and upper level; areas not covered by coursework at the community college will need to be completed after transfer.

**Children's Literature*	
American Literature	
World Literature	
British Literature	
US History, colonial to present	
World History, ancient to present (includes European History)	
Geography	
Economics	
US Government (including founding documents)	
**Physical Science with lab* or *Appropriate Integrated Laboratory Science (appropriate to the Elementary School curriculum)*	*4 credits*
**Biological Science with lab* or *Appropriate Integrated Laboratory Science (appropriate to the Elementary School curriculum)*	*4 credits*
**Mathematics (appropriate to the Elementary School curriculum)*	*6 credits*
Child Development	*3 credits*
Exploring Teaching/Foundations of Education with Pre-Practicum	*3 credits*
Preparation courses for Academic Major after Transfer (These courses may also fulfill other core requirements listed above)	*9-15* S.H.

- Achieved passing score on the Communication and Literacy Skills Test (CLST) of the MTEL.

The sending institution is responsible for identifying the transcript of each student who is a candidate for transfer under this compact.

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* *These courses should be from the appropriate department and* not *be education courses.*

Section II: Credits to be Transferred

Students fulfilling the requirements of the Elementary Education Compact are guaranteed a minimum of 60 transfer credits, exclusive of developmental credit as defined by the Board of Higher Education, applied to their degree requirements at the state college or university. The credits will be applied as follows:

- lower level arts and sciences coursework for the Route One requirements for the Initial Elementary Education Teacher License;
- institutional general education requirements;
- academic major requirements;
- elementary education lower level requirements;
- free electives.

Only college-level course credits consistent with the standards set forth in the undergraduate experience recommendations are included under this compact. Credits awarded by the sending institution through College Level Examination Program (CLEP), challenge examinations, and other life-experience evaluations for course credit will be included when the community college certifies that a student qualifies under this Compact.

Section III: Credits Beyond the Associate Degree

To complete the baccalaureate degree and receive elementary education licensure at the baccalaureate level, a student who transfers under this compact may not be required to take more than 68 additional credits at the receiving institution unless the requirements of the student's academic major are such that the combination of additional requirements in arts and sciences coursework for the Route One requirements for the initial elementary education teacher license, institutional general education requirements, academic major requirements, and elementary education requirements total more than 68 credits.

Under these circumstances, transfer students will be subject to the same requirements as native students. (The term "native students" refers to students who began their undergraduate education at the baccalaureate institution.)

It is further understood that receiving institutions may require additional coursework if Department of Elementary and Secondary Education licensure requirements change during the course of the associate's degree.

Section IV: Admission to Competitive Majors or Programs

If, because of space or fiscal limitations, the receiving institution does not admit all qualified applicants to a given major or program, the receiving institution will use the same criteria for applicants who are transfer students under this compact as it does for its native students.

Section V: Elementary Education Transfer Coordinating Committee

An Elementary Education Transfer Coordinating Committee, convened by the Board of Higher Education, will provide implementation and oversight of the Elementary Education Compact. The coordinating committee will consist of a total of 11 members: six members who are education faculty/ administrators familiar with licensure regulations (two from the community colleges appointed by the Community College Executive Office, two from the state colleges appointed by the State College Council of Presidents Office and two from the university appointed by the President's Office in consultation with the campuses); the three Joint Admissions Steering Committee co-chairs (one representing the community colleges, the state colleges and the university campuses, respectively); and representatives from the Massachusetts Board of Higher Education and the Department of Elementary and Secondary Education.

The coordinating committee will monitor, evaluate and, when necessary, modify the administration of the Elementary Education Compact. In addition, the committee should implement guidelines that are consistent across the system to address such issues as: professional development, student advising, preparation for the Center for Language Studies and Speech Technology (CLST) of the Massachusetts Test for Education Licensure (MTEL), and curriculum development. The Elementary Education Transfer Coordinating Committee will work to create a system for evaluating the effectiveness of this compact, and will assist the campuses with developing courses that meet the Department of Elementary and Secondary Education's core content knowledge areas.

Section VI: Publication of Requirements

Each public college and university that accepts this policy shall include in its official undergraduate catalog the provisions of the Elementary Education Compact. Each campus agrees to use its best effort to provide participating community college, state college or university campuses, respectively, with prompt notifications of changes in programs and curricula.

Section VII: Transfer Records

The student with Elementary Education Compact status will be furnished by the receiving institution a list of courses to be fulfilled to earn a bachelor's degree no later than the end of the first semester at the receiving institution.

Section VIII: Student Appeals

A student who believes that the provisions of this compact have not been applied fairly to their transfer application has the right to appeal.

Initially, differences of interpretation regarding the award of transfer credit shall be resolved between the student and the institution. The student shall present their evaluation of the situation to the institution from which they are transferring. Representatives from the two institutions shall then have the opportunity to resolve the differences.

Absent a satisfactory resolution, differences of interpretation may be presented to the Joint Admissions Agreement Subcommittee for Appeals.

The Early Childhood Education Compact

For students transferring from Massachusetts community colleges to public colleges and universities offering Early Childhood Education licensure at the baccalaureate level and who agree to the compact.

Section I. Requirement for Early Childhood Education Compact Status

A student shall be eligible for Early Childhood Education Compact status if they have met the following requirements:

- Achieved a passing score on the Communication and Literacy Skills Test (CLST) of the Massachusetts Test for Educator Licensure (MTEL) (Note: This requirement may be completed after receipt of the associate's degree)
- Completed an associate's degree with a minimum of 60 credit hours exclusive of developmental coursework
- Achieved a minimum cumulative grade point average of not less than 2.75 (in a 4.0 system). (Note: at their discretion, individual institutions may require a different grade point average)
- Completed the following 45-60 credit core curriculum, exclusive of developmental coursework. The core is designed to meet the requirements of the Commonwealth Transfer Compact, the Department of Early Eduction and Care's qualifications for professional child care workers (See 102 CMR 7.07(21) of the Standards for the Licensure or Approval of Group Child Care Centers and School Age Child Care Programs), and the Department of Elementary and Secondary Education's regulations for licensure as an Early Childhood Teacher. (See Section 7.05 (1) and Section 7.06: (5) of the Regulations for Educator Licensure and Preparation Program Approval)

  Composition/Writing 6 credits
  **Humanities & Social Science (9 credits of each)* 18 credits

  In addition, students should select courses from these areas that will help prepare them for the Subject Matter Test for Early Childhood Education of the Massachusetts Test for Educator Licensure (MTEL). Otherwise, they are unlikely to be able to meet the demands of the test and their baccalaureate degree in the 60-68 credits normally required upon transfer to a participating four-year institution. The topics listed below cover the humanities and social science topics that will be addressed in the subject matter test.

  **Children's Literature (Students not taking this course must take 2 of the courses listed under "3-6 credits" below.)*
  History, Geography, Government, Economics
  The Arts, basic principles and concepts. (Studio and performance courses will not prepare students for the MTEL)
  Early Childhood Growth and Development **OR**
  Child Psychology course (Birth to age 8 is required for EEC certification.) (If course is offered by a Social Sciences department, it can be used to satisfy part of the 9 credits of Social Science required above) 3 S.H.
  Physical Science with lab or Appropriate Integrated Laboratory Science 4 S.H.
  Biological Science with lab or Appropriate Integrated Laboratory Science 4 S.H.
  Mathematics (Course should cover number sense and numeration; geometry and measurement; patterns and functions; and data analysis.) 3 S.H.

**This course should be a course from the appropriate department and not be an education course.*

Early Childhood Education courses (All course curricula must address issues, adaptations, and procedures for children with diverse needs, including those with disabilities, those with limited English proficiency, and those who are gifted and talented. 12 S.H.
Introduction to Early Childhood Education with Field Experience (Should include foundations and state and national frameworks.) 3 S.H.
Early Childhood Education Practicum: (Should be a capstone course of at least 150 hours over a minimum of 8 weeks in PreK-8 education (includes pre-school settings approved by EEC) and be accompanied by a theoretical component that integrates the practicum experience with previous classroom learning.) 3-6 S.H.

Choose 1-2 courses from the following list of topics: (Students who have not selected Children's Literature will need 2. See note below.) 3-6 credits

Course Addressing Issues, Adaptations and Procedures for Children with Special Needs (Should include I.E.P. preparation, implementation and evaluation. To qualify as an EEC "Children with special needs, birth-16 years" course, the course must specifically address inclusion of children with special needs under age 3.)
*Early Childhood Curriculum**
*Program Planning**
*Behavior Management**
Preparation courses for Academic Major after Transfer (liberal arts and sciences courses may also fulfill other core requirements listed above) **OR**
Additional Early Childhood Education courses provided they are transferable to specific institutions through separate articulation agreements or course equivalencies 9-15 credits

The sending institution is responsible for identifying on the transcript each student who is a candidate for transfer under this compact.

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* *One of these courses, in addition to Child Growth and Development, is required for EEC Lead Teacher Certification. Note: to qualify for EEC Lead Teacher, students must have four courses in Early Childhood. One must be Child Development, which is required in this transfer compact program, and another* must be selected from among the asterisked courses listed above. The Introduction to Early Childhood Education will count as the third, and Children's Literature can count as the fourth. Students who do not select Children's Literature as one of their humanities/social science courses will need to take two courses from the four listed above.

Section II: Supplemental Material

In order to facilitate the transfer process and to document their future eligibility for licensure, students are strongly urged to create and maintain portfolios of their associate degree work. Portfolios should include course syllabi, papers and other student-created products, with particular emphasis on products that provide evidence of meeting the content and professional standards for teacher licensure. (See the Regulations for Teacher Licensure, Section 7.06 (5) and 7.08.)

Section III: Credits to be Transferred

Students fulfilling the requirements of the Early Childhood Education Compact are guaranteed a minimum of 60 transfer credits, exclusive of developmental credit as defined by the Board of Higher Education, applied to their degree requirements at the state college or university. The credits will be applied as follows:

- institutional general education requirements;
- academic major requirements;
- early childhood education requirements;
- free electives.

Only college-level course credits consistent with the standards set forth in the undergraduate experience recommendations are included under this compact. Credits awarded by the sending institution through College Level Examination Program (CLEP), challenge examinations, and other life-experience evaluations for course credit will be included when the community college certifies that a student qualifies under this compact.

Section IV: Credits Beyond the Associate Degree

To complete the baccalaureate degree and receive early childhood education licensure at the baccalaureate level, a student who transfers under this compact may not be required to take more than 68 additional credits at the receiving institution unless the requirements of the student's academic major are such that:

The combination of additional requirements in institutional general education requirements, academic major requirements, and early childhood education requirements total more than 68 credits.

Under these circumstances, transfer students will be subject to the same requirements as native students. (The term "native students" refers to students who began their undergraduate education at the baccalaureate institution.)

It is further understood that receiving institutions may require additional coursework if Department of Elementary and Secondary Education licensure requirements change during the course of the associate's degree.

Section V: Admission to Competitive Majors or Programs

If because of space or fiscal limitations the receiving institution does not admit all qualified applicants to a given major or program, the receiving institution will use the same criteria for applicants who are transfer students under this compact as it does for its native students.

Section VI: Early Childhood Education Transfer Coordinating Committee

An Early Childhood Education Transfer Coordinating Committee, convened by the Board of Higher Education, will provide implementation and oversight of the Early Childhood Education Compact. The Coordinating Committee will consist of a total of 11 members: six members who are education faculty/administrators familiar with licensure regulations (two from the community colleges appointed by the community college executive office, two from the state colleges appointed by the State College Council of Presidents Office and two from the University appointed by the President's Office in consultation with the campuses); the three Joint Admissions Steering Committee co-chairs (one representing the community colleges, the state colleges and the university campuses, respectively); and a representative from each of the following: the Massachusetts Board of Higher Education, the Office of Early Education Care, the Department of Elementary and Secondary Education and child care providers.

The coordinating committee will monitor, evaluate and, when necessary, modify the administration of the Early Childhood Education Compact. In addition, the Committee should implement guidelines that are consistent across the system to address such issues as: professional development, student advising, preparation for the Center for Language Studies and Speech Technology (CLST) of Massachusetts Test for Education Licensure (MTEL), and curriculum development. The Early Childhood Education Transfer Coordinating Committee will work to create a system for evaluating the effectiveness of this compact, and will assist the campuses with developing courses that meet the Department of Elementary and Secondary Education's core content knowledge requirements and the Office of Early Education Cares' professional child care requirements for certification.

Section VII: Publication of Requirements

Each public college and university that accepts this policy shall include in its official undergraduate catalog the provisions of the Early Childhood Education Compact. Each campus agrees to use its best effort to provide participating community college, state college or university campuses, respectively, with prompt notifications of changes in programs and curricula.

Section VIII: Transfer Records

The student with Early Childhood Education Compact status will be furnished by the receiving institution a list of courses to be fulfilled to earn a bachelor's degree no later than the end of the first semester at the receiving institution.

Section IX: Student Appeals

A student who believes that the provisions of this compact have not been applied fairly to their transfer application has the right to appeal.

Initially, differences of interpretation regarding the award of transfer credit shall be resolved between the student and the institution. The student shall present their evaluation of the situation to the institution from which they are transferring. Representatives from the two institutions shall then have the opportunity to resolve the differences.

Absent a satisfactory resolution, differences of interpretation may be presented to the Joint Admissions Agreement Subcommittee for Appeals.

New England Regional Student Program

This program enables residents of Connecticut, Maine, New Hampshire, Rhode Island, and Vermont to be considered for admission to programs of study not offered by public colleges in their home states. Applicants selected under this program are granted reduced tuition rates (50% above regular in-state tuition, rather than full out-of-state tuition). For further information, please contact the Admissions Office or the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111.

Army Reserve Officer Training Corps (ROTC)

Fitchburg State University students may participate in the U.S. Army Reserve Officer Training Corps (ROTC) unit at Fitchburg State University. Qualified U.S. citizens who earn their degree from Fitchburg State University and satisfactorily complete the ROTC program requirements will be commissioned as second lieutenants in the United States Army. ROTC offers two, three and four-year scholarship opportunities to qualified individuals. For more details, see Maj. Fedencia Pagaduan in the Department of Military Science, 110 Thompson Hall, call the unit at (978) 665-3126, or e-mail army-rotc@fitchburgstate.edu. (See military science course descriptions).

TUITION AND FEES

Undergraduate Day Tuition and Fees

The schedule of fees, tuition, methods of payment and refund policies are those in effect at the time of publication. They are subject to change without notice. Funds accrued for educational purposes are applied on first funds received, first funds applied to bill basis.

2010–2011 Tuition Rates

In-state students	$970/year	$485/semester
Out-of-state students	$7,050/year	$3,525/semester
New England Regional	$1,455/year	$727.50/semester

Students Over 60 Years of Age

Students over the age of 60 may enroll in classes tuition-free, provided seating is available after the registration of tuition-paying students. Students must meet the following criteria to be eligible:

- Massachusetts resident for at least one year prior to the start of the academic year and maintain such residency throughout the entire period of eligibility
- U.S. Citizen or Eligible Non-Citizen
- Enrolled in a undergraduate degree or certificate program
- Not in default of any Federal or State Loan for attendance at any institution or owe a refund for any previous student financial aid received

2010–2011 Standard Fees

The fees listed below are for a full time student, except where indicated. Full time is defined as 12 or more credits:

Application Fee (not refundable or applicable to tuition, one time only)		$25
Capital Project Fee	$138/semester	$276/year
University Fee	$2,268/semester	$4,536/year
Health Insurance (per annum) (required only if not covered by comparable insurance)		$1,017/semester
Student Activity Fee	$45/semester	$90/year
Technology Fee	$60/semester	$120/year

Incoming students are required to have a laptop computer prior to the start of classes. Recommended laptops can be found on our Web site at *www.fitchburgstate.edu/it/stucomp*.

Room and Board

The university offers a variety of on-campus housing as described in the Student Life section of the catalog. Residence hall rates include cable television, internet access and telephone service (exclusive of long distance charges) in the stated room rate. Housing and Residential Services residence hall rates are as follows:

Residence Halls with Double Rooms

Aubuchon Hall*	$2,658/semester	$5,316/year
Herlihy Hall*	$2,536/semester	$5,072/year
Mara Village*	$2,695/semester	$5,390/year
Russell Towers*	$2,658/semester	$5,316/year

**The above rates are for double occupancy in listed residence halls. Additional charges are added to the base rate for single occupancy as follows:*

Design Single	$450/semester	$900/year
Premium Single	$700/semester	$1,400/year

Residence Halls with Single Rooms

These residence halls contain only single rooms, design single or premium single charges do not apply.

Town Houses	$3,345/semester	$6,690/year
Cedar House	$3,238/semester	$6,476/year
185 North Street	$3,405/semester	$6,810/year

Dining Services

The university offers a variety of board (meal) plans to both on-campus housing students and commuters. The plans are described in the Dining Section below. All on-campus housing students (except those in Apartments and Cedar House) are required to have a meal plan, and may select from either the Freedom Plan, 15, or 10 meal plans. Board rates are as follows:

Freedom Plan	$1,395/semester	$2,790/year
15 Meal Plan	$1,345/semester	$2,690/year
10 Meal Plan	$1,245/semester	$2,490/year
5 Meal Plan	$685/semester	$1,390/year
Commuter Meal Plan	$250/semester	$500/year

Whether you like to eat three times a day, or prefer a lighter daily diet, Fitchburg State has a meal plan to meet your needs. You can grab a quick bite between classes in our Commuter Cafe or enjoy a complete hot meal in our all-you-can-eat Holmes Dining Commons.

Meal Plans

Freedom-Meal Plan

- Unlimited number of meals at Holmes Dining Commons
- $125 in Falcon Dollars
- Up to 10 guest meals per semester

15-Meal Plan

- Any 15 meals per week
- $100 in Falcon Dollars
- Up to five guest meals per semester

10-Meal Plan

- Any 10 meals per week
- $75 in Falcon Dollars

5-Meal Plan

- Any five meals per week for breakfast, lunch, dinner or brunch
- $50 Falcon Dollars

Commuter Meal Plan

- $250 Falcon Dollars to spend at Holmes Dining Hall, the commuter Café and McKay

Falcon Dollars can be used in the Commuter Cafe or in vending machines located in academic buildings and residence halls.

Deposits

The following advance deposits are nonrefundable:

• Deposit (paid once at time of acceptance; credited toward first semester fee bill)	$85
• Housing Deposit	$150

The housing deposit is required of all students requesting on-campus accommodations. The housing deposit is paid one time and will remain current as long as an active housing agreement is maintained consecutively. Upon successful completion of all housing agreements the deposit will be refunded.

Payment Options

Bills can be paid in the form of cash, cashier's checks, money orders, bank checks, traveler's checks, MasterCard, VISA, Discover, American Express, or personal checks. Fitchburg State University also has a tuition payment plan that is administered directly through Tuition Management Services (TMS).

Any payments that become past due immediately jeopardize the student's enrollment. Until debts are cleared, a student will not be permitted to register for a subsequent semester or summer session. Furthermore, the student may not be issued transcripts, or other official statements unless otherwise mandated by law. Any collection costs associated with the collection of this debt is the responsibility of the student. Additionally, the Treasurer's Office may refer an account to the State Attorney General or State Intercept Program to recover any debt owed to Fitchburg State University.

Please note: A student will be charged $30 for any personal checks returned to the university by the bank. A late payment fee, not to exceed $50 will also be incurred.

Institutional Refund Policy

The following Institutional Refund Policy is a reference for all undergraduate day students withdrawing from the university. The information below reflects the percentage of charges the student will be charged for, dependant on the official date of withdrawal. If a student is using financial aid against their total charges, please refer to the financial aid return of Title IV refund policy found on the Web at *www.fitchburgstate.edu/studentaccts/titleiv.html*. Please note that housing and meal plan refunds may vary from the below schedule. Students that are withdrawn through the administration for judicial matters may be ineligible to receive any refund for tuition, fees and/or room and board.

Withdrawal prior to the first day of classes	100%
Before the beginning of the second week	90%
From the second week but before the fourth week	50%
From the fourth week but before the eighth week	25%
From the start of the eighth week	0%

Students who withdraw after the seventh week will have no adjustments to their charges.

Dropping Courses Below Full-Time

This policy is for all students who drop below full-time (12 or more credits) state-supported courses during the first two weeks of school. For students that are withdrawing from all courses and cease enrollment at Fitchburg State University this refund policy is not applicable; please refer to the Institutional Refund Policy above.

Refunds will only be generated if the total payments exceed the total charges after adjustments have been completed.

Dropping prior to the start of classes	100%
Before the start of the second week (add/drop period)	100%
From the second week but before the fourth week	50%
After the fourth week	0%

Health Insurance

All matriculated students registering for nine or more semester hours must be enrolled in a student health insurance plan offered by the university or in a private health insurance program with comparable coverage. Students covered by insurance other than that offered by the university must:

- Complete a waiver online each fall semester.
- If an online waiver is not a completed by the due date indicated a student will be automatically billed the current health insurance rate a year for the university insurance plan. To obtain a brochure about the university sponsored insurance, please call (978) 665-3130.

Undergraduate Evening and Graduate Tuition and Fees

2010–2011 Tuition Rates

The graduate and continuing education tuition charges for all students are as follows:

Undergraduate	$110 per semester hour of credit
Graduate	$150 per semester hour of credit

2010–2011 Standard Fees

All students must pay the following fees:

Application Fee (non-refundable), undergraduate	$25
Application Fee (non-refundable), graduate	$25
Application Fee for International Students (non-refundable)	$50
Educational Services Fee:	
Graduate	$108 per credit
Undergraduate	$135.50 per credit
Technology Fee	$5 per credit
Capital Projects Fee	
Graduate	$7 per credit
Undergraduate	$11.50 per credit
*Late registration fee	$25

Students auditing classes pay regular tuition and fees.

*Nonrefundable unless a course is cancelled by the university.

Payment Options

Payment for tuition and fees must be made at time of registration in the form of cashier's check, money order, bank check, traveler's check, personal check, MasterCard, VISA, Discover, or American Express.

Any payment that becomes past due immediately jeopardizes the student's enrollment. Until debts are cleared, a student is not permitted to register for a subsequent semester or be issued academic transcripts or other official statements unless otherwise mandated by law. Any outstanding debt may be assigned to a collection agency and costs associated with the collection of this debt are the responsibility of the student.

Please note: All returned checks require a $30 returned check fee to cover charges by financial institutions. Students who do not respond to notification to rectify their account will have their account placed on hold and will be placed in the collection process.

Tuition Waivers and Vouchers

Some tuition waivers and/or vouchers may be used as partial payment for course(s) taken through Graduate and Continuing Education. The appropriate original eligibility form with all required signatures must be presented at the time of registration. It is important that students check with their own human resource department to determine eligibility. Not all tuition waivers apply to non-state funded programs such as those offered through Graduate and Continuing Education.

Tuition waivers, remissions, and vouchers **do not** apply to non-credit Lifelong Learning courses, capstones, conferences, teleconferences, independent studies, directed studies, internship, practica, fieldwork, LECAP, selected distance learning courses, courses by arrangement or professional development seminars and lectures offered through the Office of Graduate and Continuing Education.

Unpaid Charges

Any charge incurred through registration is required to be paid by the specified due date. In the event that charges are not paid, students may be administratively withdrawn, sent to a collection agency or state intercept and will be responsible for any additional fees.

If a student receives Title IV aid and has unpaid charges owed to the college, the university may automatically credit the refund to the student's account up to the amount owed by the student.

Refund Policy

The amount of a refund to a student depends on the official date of the student's withdrawal. The official date of withdrawal is the date when the Registrar's Office receives the completed withdrawal form.

Refunds for courses designated Special or Institute Scheduling:

100% refund one week prior to the first class meeting

50% refund less than one week prior to first class meeting

No refund of tuition on the first day of class or thereafter

If a course is canceled by the university, a student receives a full refund of tuition and fees.

Class meeting is defined as 2.5 hours.
Note: Independent and directed studies, internship, fieldwork, and practica are also considered to be special scheduling courses.

Refunds for Traditional and Online Courses

Refunds are determined by the number of hours the classes have met, or by the time elapsed in online courses, not by the number of hours the student has actually attended or participated. All refunds are issued by check, regardless of payment method. In the event that a class is cancelled by the university, a full refund of tuition and fees is granted. Class meeting is defined as 2.5 hours.

Fall and Spring Sessions

CLASSES HELD	REFUND
Prior to first class meeting; or, Prior to semester start date (Online)	100%
Prior to second class meeting; or, Prior to 7th day of semester (Online)	90%
Prior to fourth class meeting; or, Prior to 14th day of semester (Online)	50%
No refunds issued after fourth class meeting; or, No refunds issued after 14th day of semester (Online)	0%

Summer Sessions

CLASSES HELD	REFUND
Prior to first class meeting; or, Prior to semester start date (Online)	100%
Prior to second class meeting; or, Prior to 3rd day of semester (Online)	90%
Prior to fourth class meeting; or, Prior to 7th day of semester (Online)	50%
No refunds issued after fourth class meeting; or, No refunds issued after 7th day of semester (Online)	0%

Winter Sessions

CLASSES HELD	REFUND
Prior to first class meeting; or, Prior to semester start date (Online)	100%
Prior to second class meeting; or, Prior to 2nd day of semester (Online)	90%
Prior to third class meeting; or, On or before 3rd day of semester (Online)	50%
No refunds issued after third class meeting; or, No refunds issued after 3rd day of semester (Online)	0%

If a course is canceled by the university, a student receives a full refund of tuition and fees.

Refunds for Federal Financial Aid

Please refer to the Federal Title IV Policy section which appears in this catalog.

Students Over 60 Years of Age

Students over the age of 60 may enroll in classes tuition-free, provided seating is available after the registration of tuition-paying students. Students must meet the following criteria to be eligible:

- Massachusetts resident for at least one year prior to the start of the academic year and maintain such residency throughout the entire period of eligibility
- U.S. Citizen or Eligible Non-Citizen
- Enrolled in a undergraduate degree or certificate program
- Not in default of any federal or state loan for attendance at any institution or owe a refund for any previous student financial aid received

Health Insurance

All matriculated undergraduate students registering for nine or more semester hours, or graduate students registering for 6.75 credits or more must be enrolled in a student health insurance plan offered by the university or in a private health insurance program with comparable coverage.

A. Students covered by insurance other than that offered by the university must complete a waiver online each fall semester.

B. If an online waiver is not a completed by the due date indicated a student will be automatically billed the current health insurance rate, university insurance plan. To obtain a brochure about the university sponsored insurance, please call (978) 665-3130.

Public Disclosure

Fitchburg State University has copies of its most recent audited financial statement available in the Treasurer's Office.

The schedule of fees, tuition, methods of payment and refund policies are those in effect at the time of publication. They are subject to change without notice.

The Financial Aid Office at Fitchburg State College is committed to providing an affordable education for every student admitted to the school. The college adheres to the basic premise that the student and family are primarily responsible for meeting college costs. Financial aid is available to assist with the educational expenses that remain after the family's resources have been taken into account.

Application Process

Financial aid funds are awarded on a first-come, first-served basis, according to demonstrated financial need. In order to receive priority consideration, students must file:

- The Free Application for Federal Student Aid (*FAFSA) with the federal processor by March 1
- Any additional information needed to complete an applicant's file as requested in writing by the Financial Aid Office

Applications are accepted and processed after the priority date listed above. Late applications will be reviewed on a funds available basis.

*The FAFSA may be filed online at *www.fafsa.ed.gov.* Online processing increases accuracy and decreases processing time. Students without computer access may contact the Financial Aid Office for a paper FAFSA. Please allow four-six weeks processing time for the paper application.

Please remember that financial aid is not automatically renewed. It must be applied for each year.

Financial Aid for Undergraduate Students

Gift Aid

Gift aid is usually in the form of grants or scholarships and does not need to be earned or repaid. The following gift aid programs are available to undergraduate students at Fitchburg State College:

The Federal Pell Grant is a federally funded entitlement program designed to assist undergraduate students who have exceptional need. Grants range from $588 to $5,500 per academic year.

The Federal Supplemental Educational Opportunity Grant (SEOG) is a federally funded program, which awards funds to undergraduate students with extreme financial need and who would otherwise be unable to attend a postsecondary institution. Average grants range from $609 to $5,350 per academic year.

Academic Competitiveness Grant (ACG) is a federal grant awarded to Pell Grant recipients who are U.S. citizens and attend full time. Recipients must also have completed a rigorous high school program as determined by the Financial Aid Office. Award is $750 for freshmen and $1,300 for qualifying sophomores.

National SMART Grant is a federally funded grant awarded to high need juniors and seniors enrolled in select science majors. Recipients must be receiving a Pell Grant, attend full time, be a U.S. citizen and maintain a cumulative GPA of 3.0. Award is $4,000 per year.

Massachusetts State Grant is need-based grant aid administered by the Massachusetts Office of Student Financial Assistance (OSFA). Recipients must be enrolled full-time. Awards range from $300 to $1,000 per academic year.

Massachusetts Cash Grant is need based gift aid from Fitchburg State College funded by the Commonwealth of Massachusetts and awarded to undergraduate Massachusetts residents.

Tuition Waiver is a state-funded program for Massachusetts residents. Applicants with demonstrated need can receive a reduction in tuition. Award amounts vary, but they cannot exceed the total tuition cost for which an undergraduate day student is billed.

Massachusetts Part-time Grant is awarded to part-time undergraduate students with demonstrated financial need. Awards average $500 per year.

Special Fee Scholarship is awarded to full-time undergraduate day students who are not a resident of Massachusetts and who demonstrate financial need. Average award is $1,000 per year.

Fitchburg State College Fee Grant is awarded to Massachusetts residents with demonstrated financial need.

Other State Grants

Students from other states may be eligible to receive a grant or scholarship from their respective state. Each program has its own individual guidelines and deadlines. Students are urged to contact the appropriate agency in their state for further information.

Financial Aid for Undergraduate and Graduate Students

Student Loans

Student loans are long-term, low-interest loans, which come due only after graduation, withdrawal from the university, or upon less than half-time enrollment. Student eligibility for these loans is based on financial need and availability of funds. To apply for the loans indicated below the FAFSA is required. Once students are awarded a loan or loans, additional paperwork is required.

Federal Perkins Loan

- Available for qualifying undergraduate and graduate students
- Low-interest (5%) loan from the federal government and Fitchburg State College
- Repayment begins nine months after the student either leaves school or drops below half-time status
- Provisions for deferment, postponement, or cancellation are available for some specialized areas

Nursing Student Loan

- Assists students who are furthering their education in nursing
- Low-interest (5%) loan from the federal government and Fitchburg State College
- Repayment begins nine months after a student leaves school or drops below half-time status

Massachusetts No-Interest Loan Program

- Available to qualifying full-time undergraduate Massachusetts residents
- Zero interest loan from the Commonwealth of Massachusetts
- Repayment begins six months after a student leaves school or drops below half-time status

Federal Direct Student Loan Program

Enables both undergraduate and graduate students with demonstrated financial need to apply for a loan through Fitchburg State University, instead of applying through a bank. If a student qualifies for a **Subsidized Direct Loan:**

- The federal government pays the interest on the loan while the student is in school
- Repayment begins six months after graduation, withdrawal from the school, or upon less than half-time enrollment

An **Unsubsidized Direct Loan** is available to undergraduate and graduate students who do not demonstrate financial need or who are eligible to borrow additional funds beyond the subsidized loan:

- Loan has the same low interest rate as the subsidized loan
- Federal government does not make interest payments on behalf of the student
- Interest on the loan accrues once the loan is made
- The interest payments can be deferred or paid while the student is in school

For information on other educational loans, interest rates, eligibility standards, and requirements, applicants should contact the Financial Aid Office.

Student Employment

The college advocates earning while learning as a supplement to the gift aid and loan components of a student's financial aid package. The current work programs include:

Federal Work Study

- Federally funded part-time employment on campus
- Students are paid an hourly rate every two weeks for time worked
- Work hours are available during the academic year, holidays, and the summer
- Open positions are posted in the Financial Aid Office and on the Financial Aid Web site *www.fitchburgstate.edu/finaid*

Fitchburg State College Employment

- Part-time on-campus employment for a limited number of students
- Students are paid an hourly rate every two weeks for time worked
- Open positions are posted in the Financial Aid Office and on the Financial Aid Web site *www.fitchburgstate.edu/finaid*

Off-Campus Employment

The Career Services Center, located on the second floor of the Hammond Campus Center, provides listings of part-time positions from the local community.

- Positions are posted on a bulletin board in the G-Lobby of the Hammond Campus Center
- Flexible hours are offered to accommodate academic commitments

Eligibility for Financial Aid

Determining Financial Need

Although Fitchburg State College does not set the standards to measure financial need, the Financial Aid Office will help students and their families with the process of applying under federal and state guidelines. No student should assume that they are ineligible for financial aid. All students, regardless of family income, are encouraged to apply.

A student's financial need and financial aid eligibility is based on careful review of the information provided on the Free Application for Federal Student Aid (FAFSA). Financial need is based on the difference between expected educational costs and the family or student contribution toward those costs.

Educational costs vary according to the individual circumstances of the student, and include such items as tuition, fees, room and board, books, supplies, transportation, and personal expenses.

Family or student contribution is determined by the federal formula known as Federal Methodology, which factors in such items as income, assets, number in household, and number in college. As a result, the amount of family contribution may vary, even between households having approximately the same income.

Student Financial Aid Budgets

A student's financial aid budget is based on their own cost of education, which includes both direct and indirect expenses.

Direct expenses are paid by the student to the university, including tuition, fees, and room and board (for on-campus students). These expenses are set by the college and the Commonwealth.

Indirect expenses are those over which the student has some control, including books, supplies, transportation, personal/miscellaneous, and room and board (for off-campus students). These expenses are based on estimated costs for students at Fitchburg State University.

Estimated budget for a full-time undergraduate student living in a residence hall for the 2010–2011 school year is:

Tuition	$970
Fees	$5,430
Room	$5,274
Board	$2,790
Books/Supplies	$800
Transportation	$350
Personal/Misc.	$1,500
Total	**$17,114**

*Estimated budget for a half-time continuing education student for the 2010-2011 school year is below:

Tuition	$1,320
Fees	$1,676
Room (off-campus)	$3,150
Board (off-campus)	$2,700
Books/Supplies	$400
Transportation	$500
Personal/Misc.	$1,500
Total	**$11,246.00**

*Estimated budget for a graduate student carrying six credits each semester for the 2010-2011 school year is:

Tuition	$1,800
Fees	$1,305
Room (off-campus)	$3,150
Board (off-campus)	$2,700
Books/Supplies	$400
Transportation	$500
Personal/Misc.	$1,500
Total	**$11,355**

**Not all students will spend exactly these amounts. Budgets will vary depending on enrollment and housing status.*

Students are awarded financial aid based on their total budget. When the money for a student's financial aid is actually received at the university, it is first used to satisfy the student's direct expenses. Once a student's bill with the college is satisfied, the balance of their aid is available and may be used to satisfy any indirect expenses the student may have.

Students should plan to start the semester with enough money for books and at least the first two month's rent (if living off campus). Financial aid refunds will not be available to cover these expenses. The Student Accounts Office will notify the student about which aid has been received, which aid has been used to satisfy their bill, and which aid (if any) is available for their use.

Satisfactory Academic Progress

Eligibility for continued financial aid for a returning student is based on need (as detailed above) and Satisfactory Academic Progress (SAP). SAP is the qualitative and quantitative measurement of progress toward the completion of a course of study according to the standards of the university. Students are solely responsible for maintaining their academic progress. Those who have not done so will be notified of their ineligibility for financial aid during the award letter process.

SAP standards apply to all matriculated students.

Qualitative measure: students must maintain an appropriate cumulative Grade Point Average according to the regulations listed below.

To be in good academic standing, full-time undergraduate students must meet the following standards:

- Students with 0-29 attempted credits must maintain an overall cumulative GPA of 1.6 or higher
- Students with 30-59 attempted credits must maintain an overall cumulative GPA of 1.8 or higher
- Students with 60 or more attempted credits must maintain a 2.0 GPA to remain in good standing

Quantitative measure: based on credits successfully completed during the academic year, which runs from fall through the following summer.

- Full-time undergraduate students must successfully complete 20 credits during each academic year
- Part-time undergraduate and all graduate students must successfully complete 67% of the number of attempted credits for each semester

Students who have attempted more than 150% of the credits required for a degree are not eligible for Financial Aid.

Students who have been denied financial aid because they were not making satisfactory academic progress may again receive aid the semester after attaining satisfactory academic progress.

It is the responsibility of the student to officially notify the Financial Aid Office of any changes to their academic standing. Aid cannot be awarded until this official notification is received.

Appeal Process

Students have the right to appeal to have their financial aid reinstated under the following circumstances:

- If extreme circumstances during the course of the academic year have impacted a student's academic progress, then a letter of appeal may be submitted to the dean of student and academic life
- If a student has not met the requirements but has demonstrated academic progress, a letter of appeal may be submitted to the dean of student and academic life

These appeals will be reviewed by the dean of student and academic life. If the dean determines that the student is making significant academic progress, they may be granted a one-semester probationary period to make up coursework. Winter and/or summer sessions may be used to make up credits or improve cumulative GPAs.

Return of Title IV Funds

Refund policy for students who receive federal financial aid.

Applicability

This refund policy applies to all full-time and part-time students enrolled at Fitchburg State College who are receiving federal Title IV financial aid and withdraw from all classes.

This policy is mandated by federal regulation.

This policy deals only with the percentage of aid that is earned by a student. Charges incurred by a student who withdraws from the college are determined in accordance with the Institutional Refund Policy.

Withdrawal Requirements

All financial aid recipients that wish to withdraw from the college must do so by contacting the Financial Aid Office. The official date of withdrawal for this policy is the date that the student begins the official withdrawal process or the date that the student officially notifies the college of their intent to withdraw.

Refund Policy

Refund of federal Title IV financial aid will be based on the date a student completely withdraws from the college as described above. During the first 60% of the semester, a student earns Title IV funds in direct proportion to the length of time that they remain enrolled. A student who remains enrolled beyond the 60% point earns all aid for the semester.

The percentage of the semester that a student remains enrolled is derived by dividing the number of days that a student remains in attendance by the number of days in a semester. Calendar days are used, but breaks of at least five consecutive days are excluded from both the numerator and denominator.

Unearned federal Title IV aid other than federal work study must be repaid by the student in the following order:

Federal Unsubsidized Direct Loan
Federal Subsidized Direct Loan
Federal Perkins Loan
Federal Parent (PLUS) Loan
Federal Pell Grant
Academic Competitiveness Grant
National Smart Grant
Federal SEOG

Other Title IV Financial Aid

Students must repay 100% of unearned loans according to the terms of their promissory note. 50% of unearned grants must be repaid within 30 days of withdrawal from the university.

An example of the Return of Title IV Funds Policy is available in the Financial Aid Office.

It is very possible that a student who receives federal financial aid and withdraws from the college will owe a balance to the Fitchburg State College Student Accounts Office and may be required to repay funds to the U.S. Department of Education. Students considering withdrawal from Fitchburg State College are advised to contact the Financial Aid Office.

Correspondence

The Financial Aid Office corresponds with Fitchburg State College students via mail and e-mail. Mail will be sent to a student's permanent address during the summer and to their campus mailbox, if applicable, during the school year. E-mail will be sent to a student's fitchburgstate.edu e-mail address throughout the year. It is the student's responsibility to monitor their mailbox and e-mail accounts.

Aid for Veterans

Fitchburg State College strives to meet the needs of our veterans by providing services and information necessary to support their educational goals. Prospective and current students may receive guidance by visiting our resource webpage at *www.fitchburgstate.edu/veterans*.

U.S. veterans are entitled to certain financial aid benefits at Fitchburg State College for undergraduate degree programs. While all veterans are urged to keep informed about benefits available to them through the Veterans Administration, they should contact the Registrar's Office to establish eligibility for such benefits. The Registrar's Office will provide the veteran with an Application for Benefits or the Change of Place of Training Form, whichever is applicable. Along with an application, the veteran needs to provide the following documents for the Registrar's Office:

- a DD214 Form notarized by a veteran notary
- a marriage certificate
- birth certificates for each dependent child

All veterans, whether or not exempt from paying tuition, must pay all fees.

For more information on veterans education benefits write to:

Regional Office
Department of Veteran Affairs
JFK Federal Building, Government Center
Boston, MA 02203

Some veterans from Massachusetts are entitled to attend Fitchburg State College on a no-tuition basis.

Additional information may be obtained from:

The Commonwealth of Massachusetts
Department of Education
1385 Hancock Street
Quincy, MA 02169

Or, call the hotline at (800) 827-1000.

National Guard Tuition and Fee Waiver Program

Active members of the Massachusetts Army or Air National Guard may be eligible for a waiver of Day tuition and fee charges. Qualifying students must be matriculated into a degree program, possess a current *Certificate of Eligibility by the Military Division of the Commonwealth of Massachusetts* and be maintaining satisfactory academic progress as defined by the financial aid office.

Contact the Student Accounts Office for more information.

Scholarships for Undergraduate Students

In addition to the gift aid programs already listed, Fitchburg State College has numerous scholarships of its own. These scholarships are administered by the College Scholarship Committee or by the appropriate area representative. To assist in the evaluation of need, a scholarship application or a Free Application for Federal Student Aid (FAFSA) may be required. Scholarship applications are available on the Financial Aid Web site (*www.fitchburgstate.edu/finaid/*) beginning February 1 and running through March 1. Completed applications must be received in the Financial Aid Office no later than March 1.

I. Scholarships Awarded by the Alumni Association

Alumni Legacy Scholarship

Awarded to full-time undergraduate students who have completed at least one semester at Fitchburg State College and have a grandparent, parent, spouse, sibling or dependent who is a Fitchburg State College alumnus/a. Priority is based on academic excellence and/or financial need.

Mary F. Burnham and Mary Frances Burnham Scholarship

Awarded to a full-time undergraduate who has completed at least one semester at Fitchburg State University. Students must be working to support their education. Demonstrated financial need is preferred.

Class of 1942 Scholarship

Awarded to a full-time undergraduate with a 3.0 GPA and a record of demonstrated leadership in college activities.

Class of 1953 Scholarship

Awarded to a full-time junior education major with a 3.0 GPA who demonstrates financial need, participates in class activities, and supports the university.

Class of 1954 Scholarship

Awarded to a junior education major who demonstrates academic excellence, has financial need and is involved in school activities.

Class of 1955 Scholarship

Awarded to a full-time undergraduate who has completed at least one semester at Fitchburg State University.

Class of 1967 Scholarship

Awarded to a Fitchburg State College student chosen on the basis of academic merit and financial need.

Vincent J. Mara Scholarship

Awarded to full-time students who demonstrate academic excellence with a GPA of 3.5 or above and/or community service or extracurricular activities.

Dean Rachupka '93 Memorial Scholarship

Awarded to undergraduate students majoring in education. Students must be residents of North Central Massachusetts (Ashburnham, Ashby, Ayer, Barre, Berlin, Bolton, Clinton, Fitchburg, Gardner, Groton, Harvard, Hubbardston, Lancaster, Leominster, Lunenburg, Pepperell, Princeton, Shirley, Sterling, Templeton, Townsend, Westminster, or Winchendon). The scholarships are for one year as long as a 3.0 or higher GPA is maintained. Preference will be given to non-repeating student recipients. Preference will also be given to students who display evidence of good character and active participation in extra-curricular activities and/or community service. This award is presented during the spring semester at the Honors Convocation.

Philip J. Tardanico Scholarship

Awarded to a junior industrial technology major who demonstrates academic excellence, enthusiasm for and commitment to a career in teaching, strong moral character, and financial need. A letter of reference must be submitted from a faculty member in the Industrial Technology Department.

II. Scholarships Awarded by the Scholarship Committee

Ken and Cherie Ansin '96 Scholarship

Awarded to a non-traditional human services undergraduate student.

W. E. Aubuchon Jr. Scholarship

Awarded to a Fitchburg State College student residing in Aubuchon Hall. Financial need is considered.

William E. Clark III Memorial Scholarship

Awarded to a student demonstrating academic achievement, financial need, and potential to succeed.

Corporate Partners Program Scholarship

Awarded to a full-time undergraduate who demonstrates financial need.

A. Wallace Cunningham '43 Memorial Scholarship

Awarded to a student demonstrating academic achievement and financial need.

Carol Mulloy Cuttle Scholarship

Awarded to a full-time undergraduate Special Education major who demonstrates academic excellence. Financial need and involvement in extracurricular activities will also be considered. A student from Fitchburg or surrounding communities is preferred.

Dr. Edward T. Donnelly Scholarship

Awarded to a full-time Education major or minor who demonstrates financial need. Amount: Varies.

Dinelle L. Finch Memorial Scholarship

Awarded to a full-time female student of African-American descent interested in Business Administration, Management or Marketing. Must possess a minimum GPA of 2.5 and demonstrate financial need. Preference will be given to an alumna of Cambridge Rindge and Latin High School.

William J. Groves '42 Scholars

Awarded to full-time undergraduate students.

Walter F. Harrod '40 Scholarship

Awarded to a full-time industrial technology student who possesses a minimum GPA of 2.8 and has earned 90 credits. Preference will be given to students planning to enter a professional field in industrial technology. Financial need may be considered.

Leblond-O'Sullivan Memorial Scholarship

Awarded to a full-time junior or senior with financial need and a record of service to the university.

Buddy McMurray Good Fellowship Scholarship

Awarded to a student whose contributions to the college are positive, salutary, and inspirational of the goals for which they entered Fitchburg State University.

Annette Rose Mitchell Nursing Scholarship

Awarded to a senior Nursing student who has maintained a 3.0 GPA.

Flora D. Mulholland Memorial Scholarship

Awarded to a nursing student demonstrating high academic achievement and financial need.

Dr. Anthony J. Polito '48, '49 and Florence D. Polito '50 Family Memorial Trust

Awarded in honor of Fitchburg State College veterans and all Fitchburg State College faculty members who have served the institution.

John L. Powers Memorial Scholarship

Awarded to an industrial technology major who has maintained at least a 2.0 GPA and demonstrates financial need.

Michael P. and Barbara Riccards Scholarship

Awarded to a full-time undergraduate on the basis of financial need and academic record.

Sterilite Corporation Scholarship

Awarded to students who demonstrate financial need.

Dr. Burnham Walker Memorial Scholarship

Awarded to a full-time biology or nursing major who demonstrates academic achievement and financial need.

Lara A. Willard Memorial Scholarship

Awarded to a full-time, female, undergraduate nursing student evidencing scholastic achievement, demonstrating financial need and demonstrating the potential to succeed.

Carl T. Witherell Scholarship

Awarded to a full-time undergraduate industrial technology major.

III. Departmental Scholarships

Please contact the department listed for additional information.

Departmental scholarships offer the unique opportunity for returning students to work closely with the department chairperson of their specific discipline. Priority is given to those students with a record of academic excellence and previous departmental service. There is no financial need basis required for these awards, and decisions are made through each specific department.

Center for Italian Culture Scholarships

Awarded to students pursuing academic studies in Italian language, Italian culture or Western civilization at Fitchburg State University. Preference will be given to students who minor in Italian studies.

Stephen W. Clair Memorial Scholarship

Awarded to a geography/earth science major who has earned at least 30 credits, has at least a 3.0 GPA, is an active member of the Geography Club, and demonstrates financial need.

Roberta Fitzmaurice Connors '63 Scholarship

Awarded by the Education Department to a full-time early childhood education major who demonstrates the ability to be an outstanding early childhood educator.

Garrett Conrad Scholarship

Awarded to a student with a disability. Applicants must be registered with Disability Services, qualify under ADA, enroll for at least six credits each semester, and have completed at least one semester at Fitchburg State University. Preference will be given to students with an outstanding record of service and commitment to the college and community.

Elaine T. Coyne Women in Film Scholarship

Awarded by the Communications Media Department to a female student under criteria established by the department.

Matthew C. Dimacale Memorial Scholarship

Awarded to a non-traditional education major who plans to teach. Eligible to incoming freshmen as well as sophomores, juniors and seniors. Preference will be given to students with some musical background.

Kay Flynn '57 Special Education Scholarship

Awarded to a qualified undergraduate special education major who has performed community service work with special needs individuals. The recipient will possess a minimum GPA of 3.2 and must be recommended in writing by the Special Education Club adviser as being a loyal and hard-working member of the club.

James Guertin Memorial Scholarship

Awarded by the Nursing Department to a full-time nursing student from North Central Massachusetts evidencing a strong work ethic and demonstrated financial need.

Patrick and Mary Hammond Band Scholarship

Awarded to a full-time student chosen as an outstanding member of the Fitchburg State College Band.

Patricia A. Hess '94 Memorial Scholarship

Awarded to a full-time, non-traditional female student. Candidates must be undergraduate English and/or history majors with a minimum 3.0 GPA and 30 earned credits.

Leo J. Hines Memorial Scholarship

Awarded to a qualified English major demonstrating academic excellence.

Jerry Johnson Computer Science Award

Awarded to a full-time undergraduate student who has completed at least one semester at Fitchburg State College with a minimum GPA of 3.0 in computer science courses. Preference is given to a student athlete whose participation as a member of an intercollegiate athletic team at the college supports the tenet of "mens sana in corpore sano" (a sound mind in a sound body).

William Keough Memorial Scholarship

Awarded to a qualified English major demonstrating academic excellence.

Lou Lorenzen Visual & Performing Arts Award

Awarded to a full-time sophomore student becoming a junior with a minimum GPA of 2.5. Preference will be given to students with combined minors (communications media and art). Secondary preference is given to students with financial need.

Francis Marcille '60 Memorial Award

Awarded to an outstanding undergraduate (based on college involvement and community service) industrial technology major, with a minimum GPA of 3.0, who will enter the field of education. Preference given to students seeking employment in Massachusetts.

Eunice J. Matson Scholarship

Awarded to a full-time junior or senior student majoring in special education or behavioral science. The award will be based upon community involvement, leadership, scholarship, financial need and a narrative (essay on why you should be considered for the scholarship).

Daniel A. Mahoney Scholarship presented by J.M. Coull, Inc

Awarded to a full-time junior or senior with a focus in construction management with a minimum GPA of 3.0. Preference will be given to those with the ability to demonstrate active involvement in the student chapter of ABC.

Helen T. O'Flaherty Scholarship

Awarded to an early childhood education major who demonstrates financial need. Preference will be given to minority applicants. Award is renewable if recipient maintains satisfactory academic progress as defined by the university.

Owens-Mara Scholarship

Awarded annually to an elementary education major completing junior level work during the spring semester and selected by the Education Department based upon promise as a future elementary leader.

Louis P. Shepherd Award in Creative Writing

Awarded to the year's best student portfolio of creative writing. The award is open to all students regardless of major and/or formal course work in English.

Student Government Association Scholarships

Awarded to sophomores, juniors, or seniors with a minimum 2.2 cumulative GPA and a record of student leadership.

Visiting Nursing Association Trust Scholarship

Awarded annually to a nursing major.

Robert W. Wilson Memorial Scholarship

Awarded to a full-time undergraduate student who has completed at least one semester with a minimum GPA of 3.0 in communications media. Preference will be given to students actively engaged in the community.

IV. Admissions Scholarships

Please contact the Admissions Office for more information on these and other scholarships awarded to entering first year students.

Ethel P. Mandrus Donahue '41 Scholarship

Awarded to an incoming student intending to enter the Special Education Teacher Certification Program. The recipient must demonstrate financial need and be a resident of Hampden County, Mass. Renewable as long as the recipient remains in the special education program.

Fitchburg Mutual Insurance Company's W. Bruce Adams Memorial Scholarship

Awarded to a public high school graduate with a minimum GPA of 3.0 from the towns of Ashburnham, Ashby, Fitchburg, Leominster, Lunenburg or Westminster. Recipient must be a first-year student with a parent adjusted gross income of $40,000-$60,000. Not renewable.

Henry Frank Scholarship

Awarded to full-time entering freshmen and transfer students from Norwalk, Conn., or within a 15-mile radius of Orange, Mass., with preference given to students from Norwalk. Selection is based on academic achievement. No application is necessary. Renewable for Norwalk residents only.

Jeanne M. Joyal '53 Scholarship

Awarded to a freshman student, based on financial need and/or merit. Recipient must be an elementary education major and a resident of Western Massachusetts. Participation in extracurricular activities and/or community service considered. Renewable.

Ruth Lee Scholarship

Awarded to a student from the North Central Massachusetts region (the cities and towns included in the North Central Massachusetts Chamber of Commerce membership.) Recipient will be chosen on the basis of academic merit.

Myra McGuirk-Bonitz '14 and G'52 Scholarship

Awarded to a first year declared education major graduating from a high school in Fitchburg. Not renewable.

Ying Gean and Sui King Yee Scholarship

Awarded to an incoming Asian-American student, based on financial need and/ or merit. Participation in extra-curricular activities and/or community service considered. Renewable.

V. Graduate and Continuing Education Scholarships

Carla Borg Scholarship

Awarded to a graduate student in special education who has demonstrated exemplary skills in integrating students into the general education classroom. Nominations and selection are conducted by the department.

Dean's Undergraduate Award

Awarded annually to a student enrolled in a Continuing Education evening undergraduate degree program, who has earned at least 49 credits, with a 3.5 or better cumulative GPA. Students must be recommended by their advisors or other faculty members.

Dorothy Holmes Toporeck '28 Scholarship

This scholarship recognizes students for their scholastic excellence in undergraduate studies who are pursuing a master's degree. Scholarships will be given to graduates of Fitchburg State University's undergraduate program (with a 3.25 cumulative GPA) who are accepted into a graduate program at the university. Currently enrolled students in the university's master's degree program must demonstrate an earned 3.75 cumulative GPA and receive the recommendation of their graduate advisors or graduate program chairs.

Graduate Assistant Program

Newly admitted and current graduate students are eligible to apply for graduate assistantships. The maximum amount of the award is $5,500 for the academic year. The appointment and award includes a tuition waiver for 18 semester hours of graduate course work for the academic year of the award (excluding independent studies, lifelong learning courses, capstones, conferences, teleconferences, directed studies, internship, practica, fieldwork, LECAP, courses by arrangement or professional development seminars and lectures sponsored by Graduate and Continuing Education). Graduate assistants must pay all fees.

Qualifications

Newly accepted graduate students seeking appointments to graduate assistant positions must have an undergraduate GPA of 3.0.

Continuing graduate students must have a graduate GPA of 3.5.

Application

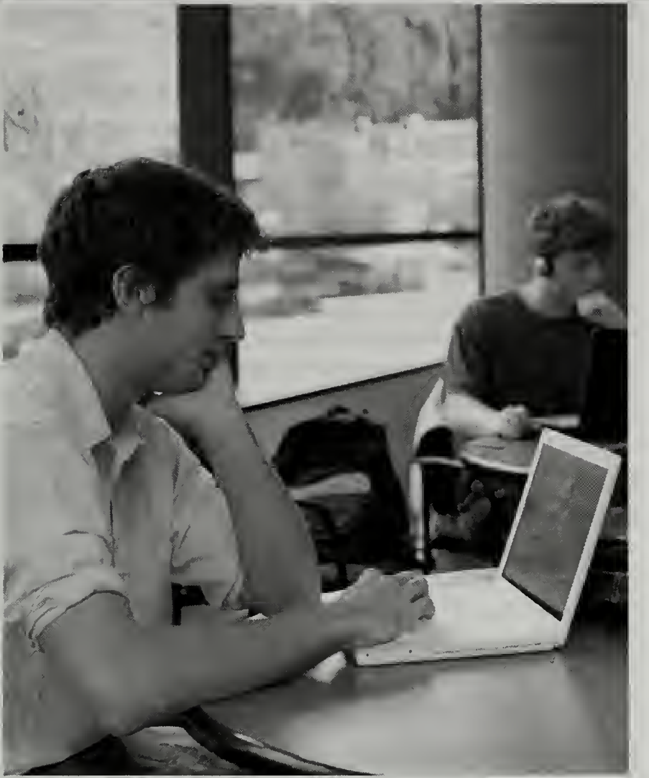
Once a position with a department has been secured, a complete application including the following documents must be submitted to the Graduate and Continuing Education Office for the Dean's review:

- Completed Application for Graduate Assistantship
- Current Resume
- Two letters of recommendation in reference to candidate's work history (letters from prior employers)
- Unofficial transcript (available on Web4)

Load and Academic Requirements to Maintain Assistantship

- Graduate Assistants must carry a load of six semester hours of graduate work per semester (Fall & Spring) in their program, which is considered full time. Under load or over load must be petitioned to the Dean of Graduate and Continuing Education.
- Graduate Assistants must maintain a GPA of 3.5 in their academic work.
- Graduate Assistants are required to work 20 hours per week, which is considered a full-time work schedule (during official school breaks students must submit a Student Petition to request permission for extended hours)
- Graduate Assistants are not allowed to secure a second position on campus.

UNDERGRADUATE ACADEMIC POLICIES AND PROCEDURES



All students at Fitchburg State College are expected to be familiar with and act in accordance with academic policies and procedures. The policies are interpreted and administered by the dean of curriculum and instruction. Students acting outside of these policies may be subject to administrative action. Special consideration may be given to students admitted or later identified as physically handicapped, learning disabled, or economically or educationally disadvantaged.

General Course Requirements

To fulfill requirements for a bachelor's degree, students must complete either the requirements of the Liberal Arts and Sciences Program (explained in the Curriculum section of catalog) or the requirements of the Leadership Academy program, as well as the requirements for their major.

The Major

Undergraduate degree candidates must declare and complete a major in one program of study offered by the university. Requirements for undergraduate majors are described in the Undergraduate Day Programs and Undergraduate Evening Programs sections.

Declaring a Major

Students may declare a major when they are admitted to the university. If a change of major is desired, students must complete a change of major card available in the Registrar's Office. For application and policies related to educator licensure programs, see page 98.

Pre-Majors (undeclared)

Students with 60 semester hours of college course work must apply for and be admitted to a major prior to registering for additional courses. All pre-majors are assigned to the Academic Advising Center and participate in the Focus on the Future programs for selecting a major. Evening pre-majors should contact the Program Advisor in Graduate and Continuing Education for guidance.

Transfer students with 60 or more credits when admitted as pre-majors have until either October 1 or March 1 of their first semester at Fitchburg State College to declare their major.

Requirements for a Major

A 2.0 cumulative GPA and 2.0 GPA in courses in the major are the minimum requirements for both admission to and completion of all major programs. Some majors, however, may have requirements higher than a 2.0 GPA in major courses for either entrance or completion.

Dismissal from a Major

Students not making satisfactory progress in completing the academic requirements of the major may be asked to select another major.

Professional programs of study may require a departmental review of students to determine if they are qualified to continue in the major. If in the review process the student is judged as unsuitable for the profession, regardless of academic standing, the student may be asked to select another major.

Successful completion of an academic program in any major field or professional program does not obligate the faculty to recommend licensure or certification, even if the candidate is awarded the academic degree.

Grading Policy

Grades are awarded on a numerical scale as follows:

4.0	A	95 –100
3.7	A-	92 – 94
3.5	A-/B+	89 - 91
3.3	B+	86 – 88
3.0	B	83 – 85
2.7	B-	80 – 82
2.5	B-/C+	77 – 79
2.3	C+	74 – 76
2.0	C	71 – 73
1.7	C-	69 – 70
1.5	C-/D+	67 – 68
1.3	D+	64 – 66
1.0	D	60 – 63
0.0	F	0 – 59
	IN	Incomplete
	IP	In Progress
	W	Withdrawn
	AU	Audit
	S	Satisfactory
	U	Unsatisfactory

Grades that fall between intervals will be rounded to the higher number.

All grades except 0.0, U, IN, IP, W, and AU are passing grades and earn credit toward the degree.

Grade Guidelines

All requirements and grading standards identified in individual class syllabi must be met.

The Grade of 4.0

The grade of 4.0 implies excellence in thinking and distinguished performance within the domain of a subject and course, along with extensive development of a range of knowledge acquired through the exercise of critical thinking skills and abilities. This level work is consistently clear, precise, well-reasoned and displays depth of insight.

The Grade of 3.0

The grade of 3.0 implies sound thinking and performance within the domain of a subject and course, along with the development of a range of knowledge acquired through the exercise of critical thinking skills and abilities. This level work is generally clear, precise, well-reasoned and displays some depth of insight.

The Grade of 2.0

The grade of 2.0 implies mixed thinking and performance within the domain of a subject and course, along with some development of a range of knowledge acquired through the exercise of critical thinking skills and abilities. This level work is inconsistently clear, precise, well-reasoned and does not typically display depth of insight.

The Grade of 1.0

The grade of 1.0 implies limited thinking and performance within the domain of a subject and course, and the student displays limited critical thinking skills and abilities requisite to understanding course content. The student attempts to acquire knowledge by memorization rather than through comprehension and understanding. This level work represents thinking that is typically unclear, imprecise, and poorly reasoned, and does not display depth of insight.

The Grade of 0.0

The grade of 0.0 implies poor thinking and performance within the domain of a subject and course, and the student does not display critical thinking skills and abilities requisite to understanding course content. The student relies on acquiring knowledge by memorization rather than through comprehension and understanding. This level work represents thinking that is regularly unclear, imprecise, and poorly reasoned, and is lacking depth of insight.

Computing Quality Points and Cumulative GPA

- Quality Points = semester hours carried by the course multiplied by numerical grade. *(For example, a three-credit course with a grade of 3.0 would earn nine quality points.)*
- Cumulative grade point average = total quality points earned in all courses divided by total credit hours completed.

Repeating Courses and Grade Substitution

Repeating Courses after a Failing Grade

A student may repeat a course in which the assigned grade is a 0.0 or Unsatisfactory. In these cases, the new grade will be substituted for the original grade in calculating the student's cumulative GPA. The original grade, however, will continue to appear on the transcript. A transfer grade of 2.0 or better eliminates the original failing grade in calculating the cumulative GPA. Because grades from transfer courses are not transferable, the new grade itself is not calculated into the cumulative average.

Repeating Courses after a Passing Grade or Audit

A student may repeat once any Fitchburg State College course for which a 1.0, 1.3, 1.5, 1.7, or AU is earned. Courses must be taken at Fitchburg State College and, if at all possible, should be taken within the following year. Students may petition the dean of student and academic life to repeat courses at other colleges.

The repeated course will be indicated as such on the student's transcript. The higher grade will be counted toward the overall GPA on the transcript.

Satisfactory and Unsatisfactory Grades

Any course can be taken for an S/U grade with the following exceptions:

- Courses required for a major unless the department has designated them as acceptable
- Courses taken to fulfill the liberal arts and sciences writing requirement
- Courses taken to fulfill the liberal arts and sciences mathematics proficiency requirement

and with the following limitations:

- A maximum of 12 credits of S/U can be applied toward the minimum credits required for a degree
- Only one course in each liberal arts and sciences cluster may be taken S/U
- No more than two courses in any discipline (as identified by course-number prefix) may be taken S/U
- Only one course per semester may be taken S/U
- No quality points are awarded with the S/U grade

Students must request the S/U option by the add/drop deadline. Once recorded, the designation cannot be changed.

Incomplete

- An Incomplete (IN) is given in lieu of a grade if a student has successfully completed at least 80% of the required course work but cannot complete the rest due to certifiable illness or the death of an immediate family member.
- Students must complete the required course work by the end of the fourth week of classes of the following semester in order to receive a grade; otherwise the IN is automatically changed to a grade of 0.0.
- While an IN is not counted in determining academic status, it may have an impact on eligibility for financial aid and athletic participation.
- Grades that result from the fulfillment of an IN will not remove a probationary, suspension, or dismissal status, nor will they count toward Dean's List or President's List eligibility.

In Progress

An In Progress (IP) is given in lieu of a grade under extraordinary circumstances where a course spans longer than one semester. IP grades can only be submitted by petition to the registrar by a department chair and must include a final date by which the IP must be completed.

Audit

- An Audit (AU) is entered into the transcript to indicate that a student has been officially enrolled in a course for neither grade nor credit.
- Students who wish to audit a course during the day must record the audit designation with the Registrar's Office by the end of the add/drop period.
- Students who wish to audit a course during the evening must register the audit designation with the Registrar's Office before the third class meeting.

Withdrawal from a Course

Withdrawals without academic penalty may be made through the end of the 11th week of classes for regularly scheduled courses and up to the 26th class hour for special scheduling courses or institute courses. Course withdrawal is initiated by calling the Registrar's Office at (978) 665-3181, or by either case the student must receive a confirming copy of the completed Course Withdrawal Form. Any student who withdraws by simply not attending classes automatically receives a failing grade for the course.

Final Grades

Final grades for courses are available to students online as soon as grades are posted. Contact professors for information about the grades you receive. For more information, see *www.fitchburgstate.edu/registrar.*

Mid-Semester Grades

Faculty will be encouraged to submit a mid-semester grade for all students that are achieving at the 1.7 grade level or lower, and/or are not attending their classes. The grades should reflect student achievement to date on graded assignments by the eighth week of the semester.

Transcripts

Unofficial transcripts are available to students online. Official transcripts may also be requested online. For each original transcript, there's a $5 fee. For more information, see *www.fitchburgstate.edu/registrar.*

Attendance

Each instructor has the prerogative to place a value upon class attendance and must inform the class of that value early in the semester. The instructor's class attendance standard should be stated in the course syllabus. If a student is absent from a class meeting, the student is required to produce appropriate documentation for the instructor's review.

Section 2B of Chapter 151c of the General Laws of the Commonwealth of Massachusetts reads as follows:

> *Any student in an educational or vocational institution, other than a religious or denominational educational or vocational training institution, who is unable, because of religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination or study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which may have been missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon the school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to students who avail themselves of the provisions of this section.*

Academic Standing

All courses completed at Fitchburg State University, including those taken during winter or summer sessions, determine current academic standing. The grades and credit for winter session and summer courses are included in the student's GPA.

Credits transferred from another institution are applied to a student's total number of credits earned, but grades earned from transferred credits are not calculated into the cumulative GPA.

Good Academic Standing

To achieve good academic standing, students must:

- Maintain an overall cumulative GPA of 2.0 or higher
- Maintain a cumulative GPA of 2.0 or higher in the major
- Meet any additional requirements of the major which have been approved by the All-College Committee and are consistent with college policy

Honors

Fitchburg State College honors students who have high academic achievement throughout their college career as well as at graduation. The honors are:

President's List

Honors students for consistently high academic achievement. Students are named to the President's List when they have attained a semester average of 3.75 or higher for three successive semesters while maintaining full-time status. Incompletes do not count toward the President's List.

Dean's List

Honors students who have attained an average of 3.2 or better for the semester while maintaining full-time status. Incompletes do not count toward the Dean's List.

Summer Dean's List

Students taking 12 semester hours or more through continuing education during the summer sessions who maintain an average of 3.2. These students can be named to the President's List if they meet the specified cumulative average.

Graduation Honors

Graduation honors recognize outstanding academic careers as signified by a high cumulative average. To graduate with honors, a student must have completed at least 60 credits with a numerical grade at the university.

Summa Cum Laude honors students who graduate with a cumulative GPA of 3.8 or higher.

Magna Cum Laude honors students who graduate with a cumulative GPA of 3.5 to 3.79.

Cum Laude honors students who graduate with a cumulative GPA of 3.2 to 3.49.

A **Commonwealth Scholar Special Distinction** is given to students who have completed the Leadership Academy (honors program) and a senior thesis.

Early Intervention for Academic Difficulties

Any undergraduate student earning less than a 2.0 GPA in a given semester will be required to meet with their advisor.

Probation

If a student's cumulative GPA falls below 2.0 at the end of any semester, that student will be placed on probation. To avoid suspension, the student must meet the following criteria:

- A student on probation who has attempted fewer than 33 semester hours and who has maintained a cumulative GPA of 1.6 or higher for two semesters may enroll for a third semester to improve academic standing.
- A student on probation who has attempted 33 to 59 semester hours and who has maintained a cumulative GPA of 1.8 or higher for four semesters may enroll for a fifth semester to improve academic standing.

Students on probation must:

- Meet with their academic advisors before the start of the second week of each semester to review current course load and arrange periodic meetings throughout the semester.
- Contact the Academic Advising Center during the first two weeks of the semester.
- Utilize the many resources the college offers, including faculty, Counseling Services, Academic Success Centers, Expanding Horizons, Career Services, and other support systems, as needed.

Students placed on probation for the first time will remain eligible to:

- Hold elected or appointed office
- Serve on campus committees
- Participate on athletic teams (provided academic progress meets the criteria in Section 1)

Any additional probations will disqualify a student from eligibility for these activities.

Students who voluntarily withdraw from the college while on probation will remain on probation if they are readmitted.

Students who maintain the university's academic standards for probation must also meet the financial aid and athletic eligibility requirements for satisfactory academic progress. (Financial Aid and Athletics offices have additional academic requirements for probationary students. Students should consult the appropriate office to determine their eligibility.)

Suspension

Any student who earns a grade point average of 1.0 or lower in their first semester of full-time study at Fitchburg State College will be suspended from the university. In all other cases, students will be suspended if they have spent at least one semester on probation and do not meet the following GPA and credit criteria:

- A student who has attempted fewer than 33 semester hours and has a cumulative GPA below 1.6 after two semesters
- A student who has attempted 33-59 semester hours and has a cumulative GPA below 1.8 after four semesters
- A student who has attempted 60 credits and has less than a 2.0 cumulative GPA

Suspended students are not eligible to enroll in any credit course in any division of Fitchburg State College for at least one semester.

Following suspension, students must submit a letter requesting re-admission before the deadline established by the registrar. Students who are readmitted after a suspension do so under contract with the dean of student and academic life.

Suspension status is not changed by a voluntary withdrawal.

Dismissal

Once students have been readmitted after a suspension, they must meet probationary standards and do so under contract with the dean of student and academic life to avoid dismissal.

Dismissal status results in permanent dismissal from all divisions of Fitchburg State University. A dismissed student may not enroll in any credit courses in any division of the college for a period of five years.

Credit Elimination Policy

The Credit Elimination Policy applies to students who leave the college and desire to return after five or more calendar years. Such students may eliminate all or part of previously earned credits from their transcripts, in units of one semester or more. When a particular semester of credit is designated to be eliminated, all credits from this semester must be eliminated.

This policy requires that:

- Credit elimination may only occur once
- A request for credit elimination must be in writing
- The dean of student and academic life must approve the request

Transfer Credit

Credit received for courses completed at other regionally accredited institutions of higher education may be transferred to Fitchburg State College and applied toward degree programs if:

- The courses are equivalent to courses offered by Fitchburg State College or appropriate to programs at the college
- The grade received was at least a 2.0 (C) or higher. Credit for courses transferred with passing grades below 2.0 may be approved in exceptional circumstances or if the credits are included as part of an articulation agreement/associate's degree program covered by the Commonwealth of Massachusetts Transfer Compact
- A maximum of 60 semester hours credit from two year institutions, college level examinations, and/or military training will be considered for transfer
- A maximum of 75 semester hours of credit will be considered from four year baccalaureate institutions

Value of transferred credit

- Transferred credits count only as credit hours earned
- No quality points or grades are transferred or calculated in the student's cumulative GPA
- A minimum of 45 semester hours toward a baccalaureate degree must be completed at Fitchburg State College
- For students with one major degree program and one or more minors, no more than 50% of major credits and 50% of minor credits can be completed as transfer credits. For students with two major programs (double majors), up to two/thirds of the credits (67%) in one of the two majors may be accepted as transfer credit, upon the advice of both major advisors and with the approval of the department chairs and the associate vice president for academic affairs. At least 50% of the two majors combined must be Fitchburg State College coursework (that is, any additional courses accepted as transfer credit for one major must be balanced by additional Fitchburg State College coursework in the second major).
- Major departments may have additional requirements

Approval of transfer credit may be authorized by the registrar, the associate vice president for academic affairs, or the dean of education.

International Baccalaureate Credit

The official IB transcript and World Education Services (WES) translation of non-English originals are required.

Fitchburg State College awards transfer credit to students who are recipients of the International Baccalaureate (IB) Diploma or Certificate as follows:

IB Diploma recipients may be awarded six to eight semester hours of credit, based on articulation, for each higher level (HL) subject examination passed with a score of 4 or higher.

IB Certificate recipients (those not awarded the Diploma) may also be awarded six to eight semester hours of credit, based on articulation, for each higher level (HL) subject examination passed with a score of 4 or higher.

A maximum of 30 semester hours of credit may be awarded. No credit is awarded for standard level (SL) subject examinations.

College-Level Examination Program (CLEP), Defense Activity for Nontraditional Educational Support (DANTES), Departmental Examinations

Students entering Fitchburg State College with college-level training or experience can be tested on college course material to earn credit toward their degree. The Fitchburg State College examination program is especially valuable for individuals who have had learning experiences outside the college classroom (employment experience, life experience, independent study, etc.) which may come to bear upon their formal academic training.

On the CLEP exams, Fitchburg State College adheres to the standards established by the American Council on Education granting credit for tests on which a score of 50 has been achieved. This credit is awarded only to students enrolled in degree programs at Fitchburg State University.

The nearest CLEP and DSST exam site is at the testing center of Mount Wachusett Community College (978) 630-9244.

It is possible to gain up to 60 college credits through the program for all majors except criminal justice. Criminal justice majors can earn no more than 12 credits through examination.

Advanced Placement

For students who score 3, 4, or 5 on the advanced placement examination, the college grants advanced placement status and credit in the area tested. See the Academic Glossary for the advanced placement courses accepted.

Academic Integrity Policy

Every member of the college community is expected to maintain the highest standards of academic integrity. A student shall not submit work that is falsified or is not the result of the student's own effort. A student who is in doubt regarding standards of academic integrity in a course or assignment should consult the faculty member responsible for that course or assignment before submitting the work. A student's lack of understanding of the academic integrity policy is not a valid defense to a charge of academic dishonesty.

A student's name on any written or creative exercise (e.g., examination, report, thesis, theme, laboratory report, computer program, artistic production, etc.), or in association with an oral presentation, declares that the work is the result of that student's own thought and study. Any work that the student declares as their own shall be stated in the student's own words and produced without the assistance of others. Students must make clear through accurate citations when they make use of other sources. Talking during an examination, or possession or use of unauthorized materials or equipment during an examination constitutes an infringement of the academic integrity policy. Aiding and abetting academic dishonesty also constitutes a violation of the academic integrity policy.

Unless permission is received in advance from the faculty member in charge of the course involved, a student may not submit, in identical or similar form, work for one course that has been used to fulfill any academic requirement in another course at Fitchburg State College or any other institution. A student who perceives the possibility of overlapping assignments in courses should consult with the appropriate faculty members before presuming that a single effort will fulfill requirements of both courses. Students should consult course syllabi for additional guidance on matters of academic integrity.

When an alleged offense of the Academic Integrity Policy has occurred, the following process will apply:

1. *If the accuser is a faculty member*, and they decide to make a formal accusation of a violation of the academic integrity policy, the faculty member will provide the student with a letter describing the case for academic dishonesty within **14 days** of discovering the alleged infringement. This letter may be presented to the student in person or delivered to the student's home, local or campus address or mailbox, or Fitchburg State College email account. The student will either:
   - **a.** agree with the accusation of academic dishonesty and the sanction as imposed by the faculty member or
   - **b.** disagree with the accusation of academic dishonesty. (A student cannot agree with the accusation of academic dishonesty but disagree with the sanction. Disagreement with a sanction, in other words, is not grounds for an appeal.)

   If the student has agreed with the accusation and signed the letter accordingly, the sanction identified by the faculty member will be imposed, and the matter will be considered closed. If the student disagrees with the accusation and again signs the letter accordingly, the student may appeal the matter to the college conduct board. With all formal accusations of a violation of the academic integrity policy, the faculty member will forward the letter with the student's signature and other relevant information to the director of student conduct. (Proceed to No. 3 below.)
2. *If the accuser is not a faculty member,* and they decide to initiate the formal process, the accuser must submit a report and/or relevant information to the Office of Student Conduct within **14 days** of discovering the alleged infringement of the academic integrity policy.
3. Once a case is forwarded by a student or as an appeal (in the form of a report, signed letter and/or other relevant information), the director of student conduct, or designee, will review all relevant information and either:
   - **a.** dismiss the incident due to lack of merit or timeliness or
   - **b.** contact the accused student to schedule a conduct board hearing.

4. If the case goes to the conduct board, the board will determine whether the student is responsible or not responsible for violating the academic integrity policy. If the student is found responsible, the board will recommend sanctions to the dean of student and academic life, or designee, or, in the case of graduate students, the dean of graduate studies. These sanctions will include those identified by the faculty member and, in the event a student has a prior disciplinary record, may also include the additional sanctions of:
   - a grade of zero on the assignment;
   - a failing grade in the course;
   - suspension from Fitchburg State College;
   - dismissal from Fitchburg State College;
   - or other sanctions.
5. In cases of undergraduate student violations of the academic integrity policy, the dean of student and academic life (or designee) will either impose the sanction recommended by the conduct board or determine that the sanction is excessive or inadequate and alter it accordingly. In cases of graduate student violations of the academic integrity policy, the dean of graduate studies (or designee) will take the above action.
6. The student may make a final appeal to the president of the college only for a sanction of suspension or dismissal.

   Note: If the student agrees with the academic dishonesty finding by the faculty member, the case will not go before the conduct board; however, if they have a prior disciplinary record, the director of student conduct may pursue other charges and sanctions once the academic integrity issue has been resolved.

Undergraduate Day Policies and Procedures

Course Registration

Approval of Course Schedule

Prior to course registration each semester, students must meet with their advisor to review their academic progress and to develop a course schedule for the upcoming semester. Advisors must approve course selections before the student is permitted to register.

Identification of Class Standing

For the purpose of registration and financial aid, the following classifications are identified:

Freshmen	students with between 0-23 earned credits
Sophomores	students with between 24-47 earned credits
Juniors	students with between 48-71 earned credits
Seniors	students with 72 or more earned credits

Add/Drop

During the first six class days of the semester, students may either add or drop a course. Although students may make changes to their schedule during the add/drop period without the approval of their advisor, they should confer with their advisor when making changes that affect their progress towards graduation or fulfillment of their major requirements.

Course Load

Graduation requirement: a minimum of 120 semester hours in all majors (See Undergraduate Day Programs).

Full-time status: a minimum of 12 semester hours each semester. Students must maintain full-time status to remain eligible for financial aid, varsity athletics, academic honors including Dean's List, participation in student governance, VA benefits, scholarships, and health insurance coverage. Both day and continuing education courses are included in calculating total semester hours.

Maximum allowable course load: 18 semester hours. Students registering for more than 18 semester hours (whether solely at Fitchburg State College or in conjunction with courses taken at another college) must have the permission of the dean of student and academic life or dean of education along with their major advisor. A student with a cumulative GPA below 3.0 will normally not be granted permission to register for more than 18 semester hours. Students taking overloads without permission may be denied credit for overload courses, regardless of grades earned.

Four-year undergraduate degree: At least 15 semester hours per semester are recommended for graduation in four years. Certain majors may require enrollment in specific courses or with specific course loads in certain semesters; students are responsible for understanding requirements for their major.

Program enrollment: Under certain circumstances, day program students may be permitted to enroll full-time for a semester through the Graduate and Continuing Education division, and vice-versa. Approval for such enrollments must be granted by the dean of student and academic life.

Withdrawal from the College

Students who withdraw from the university, either during or between semesters, must complete a withdrawal form with the dean of student and academic life. Students who withdraw within the first 11 weeks of the semester will receive a W in each course.

Students who leave the college after 11 weeks of the semester will receive a grade of 0.0 or U in all their courses unless granted a waiver by the dean of student and academic life for documented extenuating circumstances.

Students withdrawing in good standing may apply for readmission to the registrar before May 1 for fall semester or Nov. 1 for spring semester. Readmission is not guaranteed. The registrar will consider academic, financial, and college discipline records, in addition to space available, when granting readmission.

Students who are called to active military duty should contact the Dean of Enrollment Management or Dean of Student and Academic Life immediately in order to expedite the withdrawal process.

Students must complete the registration process prior to the start of classes of the semester they wish to be readmitted.

Student Grievance

A student who is dissatisfied with a grade received or with any other aspect of instruction in a particular course is to confer with the instructor, who will explain the reasons for awarding the grade. If such a conference fails to achieve a satisfactory resolution, the student should confer with the department chair. If still unsatisfied, the student may then appeal in writing to the dean of student and academic life or the dean of education to adjudicate the situation.

Undergraduate Evening Policies and Procedures

Course Registration

Students must register for courses within the curriculum requirements as set in the College Catalog of the year of matriculation. However, it is the right of the college to alter the requirements to meet statutory, educational, or professional standards.

For regularly scheduled courses, students must register before the second class meeting. Early registration is recommended for all matriculated students and applicants in order to secure seats in the courses needed to proceed in degree programs. The regular registration period ends two weeks prior to the start of the semester, with late registration and late charges commencing thereafter. Please refer to the semester course bulletin or website for specific registration dates.

Senior Level—Graduate Credit Policy

A senior level student (90 semester hours or more) with a 3.5 GPA or better may register for graduate credit courses at the 6000 level and above with the following restrictions:

- Approval must be obtained from the dean or designee
- Combined graduate and undergraduate credit load in a semester is not more than 15 hours
- No more than three graduate credits may be taken in a semester
- Recommendation of the appropriate undergraduate advisor and registrar must be submitted to the dean for approval
- No more than nine semester hours of graduate credit may be accumulated by a senior. Graduate credits are applicable to maintain full-time status to receive financial aid
- Graduate courses taken toward undergraduate degree requirements cannot be transferred into a graduate program at Fitchburg State College

Scheduling of Courses

The Office of Graduate and Continuing Education schedules courses at times that are convenient for working adults. Schedules are created in the academic departments in consultation with the Office of Graduate and Continuing Education. Most courses are offered in the late afternoon or evening; some courses are scheduled on weekends, and many courses are available online. Winter session courses are online and summer session courses are scheduled during mornings, afternoons, or evenings, as well as online.

Course Load

Fall and spring semesters: Maximum academic load is twelve credit hours.

Winter session: Maximum academic load is six credit hours.

Summer session: The maximum academic load during the combined summer sessions is 12 credit hours.

Any student registering for credit beyond the normal load must submit a written request seeking approval from their advisor prior to registering by submitting an academic petition waiver form.

Full-time status: Minimum of 12 semester hours each semester. Students must maintain full-time status to remain eligible for financial aid, varsity athletics, academic honors including Dean's List, participation in student governance, VA benefits, scholarships, and health insurance coverage. Both day and continuing education courses are included in calculating total semester hours.

Course Changes

Changes to courses must be made before the second meeting or within 48 hours of the start date for online courses. Course changes for winter courses must be made by noon or the first day of the session. No change in credit is permitted after the second meeting. After the start of the second class meeting, the dropping of a class is considered a withdrawal. A change of credit to audit status must be made before the third class meeting of a course. (Class meeting is defined as 2.5 hours.)

Course Withdrawals

Withdrawals without academic penalty may be made through the end of the 11th week of classes for regularly scheduled courses and up to the 26th class hour for special scheduling courses or institute courses. Course withdrawal is initiated by calling the Registrar's Office at (978) 665-3181, or by visiting that office in the Sanders Administration Building. In either case, the student must receive a confirming copy of the completed Course Withdrawal Form. Any student who withdraws by simply not attending classes automatically receives a failing grade for the course.

Cancellation of Courses

The college may cancel courses for insufficient enrollment or for other reasons deemed to be in the best interest of the university. Students who sign up for a course which is canceled may transfer to another course or receive a full refund of tuition and fees.

Withdrawal from the College

A degree-seeking undergraduate student may initiate withdrawal from the college by contacting the dean of student and academic life. A student who does not register for a course for two years is automatically withdrawn. A degree-seeking student who decides to return to Fitchburg State College must initiate reinstatement through the Registrar's Office.

Students who are called to active military duty should contact the Dean of Enrollment Management or Dean of Student and Academic Life immediately in order to expedite the withdrawal process.

Student Grievance

A student who is dissatisfied with a grade received or with any other aspect of instruction in a particular course is to confer with the instructor, who will explain the reasons for awarding the grade. If such a conference fails to achieve a satisfactory resolution, the student should confer with the department chair. If still unsatisfied, the student may then appeal in writing to the dean of student and academic life, the dean of graduate and continuing education or dean of education to adjudicate the situation.

STUDENT SUPPORT SERVICES

Fitchburg State College is committed to the academic success of its students. Several programs are available to advise, assist, and guide students through the Academic Success Centers. Students are encouraged to take advantage of these programs throughout the academic year.

Academic Advising

The adviser is a critical resource for all students during their academic career. Every student is assigned a faculty advisor. The adviser fulfills many important functions for a student, including:

- Being the primary resource in the planning of a course schedule each semester
- Advising students regarding any problem or concern involving their academic program

Adviser Availability

Undergraduates

All faculty have at least three office hours during the week set aside for meetings with their students. Hours are posted on doors of faculty offices, and in the office of the secretary of the major academic department, and are also available through the Office of Academic Affairs. Advisers are available for extended hours the month prior to registration each semester.

Graduate and Continuing Education Students

For general advising purposes, faculty advisers are available each night, Monday through Thursday, during the semester. Appointments with advisers for general advising are made through the Registrar's Office.

Academic Advising Center

The Academic Advising Center specializes in assisting undergraduate day students who:

- Have not declared a major
- Challenge courses via Life Experience Credit Award Program (LECAP)
- Are experiencing academic difficulty
- Are needing help in interpreting specific academic regulations
- Are pre-majors assigned to the Focus on the Future program

The center is staffed by two full-time administrators chosen for their specific expertise in assisting students to make the best possible use of their academic experience.

The Advising Center is located on the first floor of the Hammond Campus Center. Please refer to the Web site at www.fitchburgstate.edu/advisingctr, or call (978) 665-3319 or 3321.

Academic Success Center

The Academic Success Center is a group of 12 programs and services that work collaboratively to support students toward their academic success and assist students to achieve their Fitchburg State College degree. The collective approach is proactive and student centered.

Students are encouraged to investigate these programs and services and consider how the center's staff can assist them to address their concerns and realize their goals.

The following programs and services comprise the Academic Success Center: Academic Advising Center, Counseling Services, Career Services, Disability Services, Expanding Horizons, International Education Office, Mathematics Center, Multicultural Student Services/ACCESS, Placement Test Center, Tutor Center, and the Writing Center.

For further information, visit the Academic Success Center's Web site at *www.fitchburgstate.edu/success.*

Mathematics Center

The Mathematics Center offers peer tutors who specialize in one-on-one tutoring on a walk-in basis. Tutoring is available for fundamentals of arithmetic and algebra through upper-level mathematics courses. Tutors will guide you and provide an explanation of the concepts and steps to solving your specific mathematics questions. Peer tutors focus on effective learning strategies that develop student's understanding and skill.

The Mathematics Center is open Monday & Tuesday from 11:00 a.m. to 9:00 p.m. and Wednesday & Thursday from 11:00 a.m. to 7:30 p.m. Students affiliated with Multicultural Student Services, Disability Services and the Expanding Horizons Program can request individual math tutoring by contacting the Tutor Center. All other students must use the Mathematics Center walk-in service. A listing of specific subject specialties and tutors' hours are posted at the Math Center and on its Web site at *www.fitchburgstate.edu/mathctr.*

Writing Center

The Writing Center offers peer tutors who specialize in one-on-one tutoring. Individual tutoring can be requested by contacting the Tutor Center.

With a focus on clear communication, the Writing Center peer tutors work together with writers at all levels, in all stages of the writing process and in all areas of study. Each meeting begins in the same manner, with a discussion of the assignment. What happens next depends on where the student is in the writing process and what their needs are. Tutors do not write on or edit papers. The student is the author; problems are addressed together, but the student makes the final writing decisions.

For further information contact the Tutor Center at (978) 665-3499 and visit the Writing Center Web site at *www.fitchburgstate.edu/writingctr.*

Placement Test Center

The Placement Test Center administers the required placement tests in algebra, reading, writing and foreign languages for all new freshman and transfer students. Students also receive advisement on the required beginning sequence of courses appropriate for them at Fitchburg State University.

Please visit the Web site at *www.fitchburgstate.edu/placementtest* for further information regarding waivers, test dates, test registration and test preparation resources.

Tutor Center

The Tutor Center offers free individual and group peer tutoring, in a variety of subjects, designed to help students increase their academic performance. Tutoring sessions focus on reviewing and explaining content and concepts. Tutors also introduce study and learning methods that assist students to develop new habits for learning.

Individual study and learning strategy sessions are available. Students are assisted to craft a study plan that builds effective learning habits, long-term memory and improved reading, note taking and test taking skills.

Test preparation workshops and individual tutoring assists students to prepare for the Massachusetts Tests for Educator Licensure Communication and Literacy Skills, General Curriculum, Foundations of Reading, and Early Childhood Tests.

The Tutor Center has earned the prestigious College Reading and Learning Association (CRLA) International Peer Tutor Certification status. This provides the Tutor Center the authorization to award International Peer Tutor Certification to peer tutors who meet the four standards of quality (tutor training, selection, experience and evaluation) required by the CRLA.

Students selected to become peer tutors demonstrate excellent communication skills and had earned a grade of 3.3 to 4.0 in the subjects that they tutor. Tutors complete a 10-hour tutor training seminar and have learned to apply the research based knowledge and skills of effective tutoring and integrate learning principles and strategies within each tutoring sessions.

The Study Partner service matches students in the same class with a study partner and provides guidelines on how to maximize your learning and time while studying with a classmate.

The Study Group Peer Facilitation service provides a peer tutor trained in effective study group processes. If you are studying with a group of three to five students you may request a peer facilitator who will attend your group. The peer facilitator's goal is to maximize each members learning and critical thinking through group discussion and supplemental instruction activities. Guidelines on how to maximize your learning and time while studying together will be integrated into the study group.

Strategies for Academic Success Seminars provide instruction on the research based college study methods. Students learn specific step-by-step actions and practice the study method during the seminar. The seminar topics are:

1. Cognitive learning style—Use it to your advantage
2. Learning principles
3. Discover your strengths
4. Time management & goal setting—Habits for learning
5. Learning from text books
6. Develop your note taking skills
7. Re-writing notes to maximize learning
8. Multiple choice test taking skills.

The Tutor Center is located in room 322 in the Hammond Campus Center. To make an appointment with an individual peer tutor, call (978) 665-3499, visit the Tutor Center Office, or visit the Tutor Center Web site at *www.fitchburgstate.edu/tutoring.*

Multicultural Student Services/ ACCESS Program

The Multicultural Student Services/ACCESS staff develop a supportive community where students feel comfortable, respected, and challenged academically. Services include:

- Academic pre-advising
- Academic, career and personal goal setting assistance
- Individualized academic assessment
- Mid-semester progress reports
- On-going support services that assist students to achieve their semester goals
- Peer tutors
- Personal problem solving
- Social and Cultural activities/experiences
- Study and learning strategies instructions

Students enrolled in the program are expected to utilize the program services and visit their counselor at least three times per semester.

In addition, the Multicultural Students Services/ACCESS program assists in promoting a college-wide program of multicultural educational activities designed to contribute to a positive campus culture of appreciation and respect for differences. The staff partners with faculty, Academic Success Center offices and student organizations to assist in the planning and implementation of multicultural awareness events and activities.

The Multicultural Student Services/ACCESS program supports and encourages students to develop leadership skills through participation in student organizations including the Black Student Union and the Latin American Student Organization.

The Multicultural Student Services staff also assists the Admissions Office staff with the recruitment and outreach activities for all undergraduate minority students.

The staff welcomes you to call them at (978) 665-3399 or visit the office on the third floor of the Hammond Campus Center. Additional information can be found on our Web site *www.fitchburgstate.edu/mssaccess*.

Expanding Horizons Program

Expanding Horizons is a student support services program designed to promote the academic success of Fitchburg State College students who are from low-income backgrounds, families where neither parent has attained a baccalaureate degree, and/or students with disabilities. Funded by the federal government, Expanding Horizons is part of the nationwide network of TRIO Programs, established more than 30 years ago, that have helped an estimated two million students enter and graduate from college despite barriers due to race, ethnic background, socio-economic circumstances, or disability.

The Expanding Horizons Program at Fitchburg State College strives to create a smaller learning community within the larger campus community. Expanding Horizons staff work with students to facilitate the adjustment to college and enhance their ability to attain their fullest academic potential. Expanding Horizons offers a number of programs and services.

For freshman and transfer students:

- Extended pre-semester orientation program
- Peer mentors
- Explorations Seminars-short seminars on such topics as financial aid, career awareness, research skills and more
- Individualized academic assessment

For all Expanding Horizons students:

- Laptop loans and computer work stations
- Career and academic counseling
- Personal problem solving
- Professional developmental writing tutor
- Study skills support
- Graduate school counseling
- Social and cultural activities
- Expanding Horizons works in collaboration with the Academic Success Centers to promote student success

To be eligible for Expanding Horizons, a student must be a citizen or national of the United States or meet the residency requirement for federal financial assistance, be enrolled or accepted for enrollment at Fitchburg State College and have an academic need for services. In addition, students must:

- Meet federal low income guidelines
- Be a first generation college student (neither parent has achieved a baccalaureate degree)

And/or

- Be a person with a disability

For further information, or to be a participant in the Expanding Horizons Program, visit the office on the third floor of the Hammond Campus Center or call (978) 665-3064.

International Education Office

Fitchburg State College encourages a global perspective on campus by promoting programs for international students as well as for students who want to study in another country. Both types of students enrich the cultural and ethnic diversity of the college community. The Office of International Education benefits international students, those who wish to study in another country, and those who are interested in an on-campus international experience.

Services offered to international students include assistance with their transition to university, cultural awareness programs, and guidance when completing the necessary paperwork and communications with the U.S. Citizenship and Immigration Services.

Fitchburg State College encourages students to consider a semester or a year of study in another country as part of their educational experience. The college has established a number of study abroad programs with colleges and universities throughout the world. For specific information about international study possibilities, contact the Office of International Education, (978) 665-3089.

Disability Services

Fitchburg State College encourages students with disabilities to participate fully in all academic programs and student activities. Disability Services is the primary support system for students with disabilities taking classes in the day and evening division.

The objective of Disability Services is to promote independence, build skills, and facilitate achievement of educational goals for individuals with disabilities. A number of services are available through the office. Some examples of services and academic accommodations are listed below. Please note that this list is not exhaustive.

- Adaptive software and computer equipment
- Testing accommodations (for example, out of classroom testing, extended time testing)
- Alternate format materials (for example, Braille or electronic text)
- Assistive listening devices
- Sign language interpreters
- Reduced course load
- Skill-building workshops and coaching

To be eligible for academic accommodations, students must request services themselves and must provide appropriate documentation to support the need for such services. Requests for accommodations must be made in a timely manner and must be reasonable given the nature of the disability.

For comprehensive information about obtaining accommodations, please contact the department secretary at (978) 665-4020 (voice) or visit the Web site at *www.fitchburgstate.edu/disability*. Note: If the telephone does not suit your communication preferences, please contact the department via TTY (978) 665-3575, Mass Relay (dial 711) or use e-mail.

Career Center

The Career Center provides a variety of programs and activities to assist students and alumni in planning for career decisions during and after Fitchburg State University. The center provides all aspects of career guidance and counseling, as well as assists students in the school to work, undergraduate to graduate transition.

Services are accessible through the Career Center's Web site at *www.fitchburgstate.edu/careersvs*.

The center is located on the second floor of the Hammond Campus Center and can be contacted at (978) 665-3151 or *careersvs@fitchburgstate.edu*.

Counseling Services

The Counseling Services Office provides confidential short-term counseling to all students at no charge. Clinicians are available for individual, group and couples counseling, crisis intervention, educational programming, outreach workshops, community referrals, and inservice training.

Counseling Services offers a variety of outreach programs to educate students in the areas of sexual assault and violence prevention, body image, stress and anger management, eating disorders, depression, and substance abuse.

The Counseling Services Office is located on the third floor of the Hammond Campus Center. The hours are 8:30 a.m. to 5 p.m., Monday through Friday. Appointments can be made in person or over the telephone (978) 665-3152. For more information, see the Web site at *www.fitchburgstate.edu/counseling*. Students can see a clinician without an appointment during the daily walk-in time, which is from 2 p.m.–3 p.m. daily; however it is **strongly encouraged that students schedule appointments** if at all possible.

Counseling Services Office provides 24-hour emergency response to the college during the regular academic year. The counselor-on-call can be reached through the Campus Police Department at (978) 665-3111, or by contacting Housing and Residential Services staff.

Student Health Services

Anthony Building
(978) 665-3216
Martha Favre M.S., F.N.P., Director
www.fitchburgstate.edu/healthserv/

Health Services provides ambulatory care, health education/promotion and maintains health records for all full-time undergraduate and graduate students at the university. Services include:

- Urgent care of acute illness and injury
- Evaluation, treatment and/or referrals as needed
- Immunizations such as: tetanus-diphtheria (Td), mumps-measles-rubella (MMR), hepatitis B, influenza, and meningococcal vaccine
- Tuberculin skin testing (PPD)
- Health education and health promotion
- Women's health care, such as breast exams, gynecologic exams, contraception, and morning after pill
- Men's health care

Students can schedule an appointment at Health Services and they will be seen by one of three providers: a nurse practitioner, a physician assistant or the college physician. The clinic is open Monday through Friday from 8 a.m. to 5 p.m. **by appointment** by calling (978) 665-3216. Usually the student can be seen the same day or within 24 hours, but if the student cannot be seen in the clinic that day, they will be referred to Urgent Care at Burbank Hospital, Fitchburg, or the emergency room at HealthAlliance Hospital in Leominster. If a student does not have transportation to the emergency facility, Health Services will facilitate. If a student has an emergency after 5 p.m., they should call Campus Police at (978) 665-3111 for assistance.

A laboratory facility is part of the clinic. Routine tests are offered free of charge. Any specimens that need to be analyzed by the commercial laboratory will be charged to the student's insurance.

Health and Immunization Requirements

In compliance with Massachusetts Public Law 105 CMR 220.700 as of August 2005, all newly enrolled part-time undergraduate and graduate, resident and non-resident students enrolled in a degree granting program must provide documentation of receipt of one dose of meningococcal vaccine within the last five years or provide Health Services with a signed waiver for meningococcal vaccination requirement state approved form. The documented vaccine or the completed waiver form must be received by Health Services prior to the start of your first semester either by Aug. 1 or Jan. 1.

Fitchburg State College also requires the following immunizations to be provided to Health Services at the time as stated in the Massachusetts Public Law 105 CMR 220.600:

Fitchburg State College requires all full-time matriculated undergraduate, graduate, or other category of residential student and international student studying on campus to comply with Massachusetts Public Law 105 CMR 220.600:

Every student must provide Health Services with the following information before they start their first semester either by Aug. 1 or Jan. 1.

- Completed Fitchburg State College health form
- Physical exam that has been completed within the past year
- Two doses of live measles vaccine (one after 12 months of age and update) or proof of a positive titer
- At least one does of mumps and rubella vaccine or proof of a positive titer
- TD (tetanus & diphtheria) booster within the past 10 years
- Tuberculosis risk assessment/PPD if required must be done in the U.S.; if PPD (TB skin test) is positive, we need proof of a negative chest X-ray
- Three doses of hepatitis B vaccine or proof of a positive titer

Part-time and Full-time Matriculated Undergraduate and Graduate Nursing Student Requirements

- Annual physical
- Annual PPD (TB test) and proof of a negative chest X-ray if the PPD test was positive;
- State required immunizations as stated above

Failure to comply with these requirements will prohibit your registration for classes.

Confidentiality

Fitchburg State College Health Services is legally and ethically obligated to protect the patient's right to privacy. Student medical records are strictly confidential.
All Fitchburg State College Health Services staff are required to sign a statement of adherence to confidentiality policies. No one other than Fitchburg State College Health Services staff has access to student medical records without a patient's prior written permission. This restriction includes parents, faculty and staff or outside agencies. In life-threatening emergencies, only pertinent information will be released to appropriate parties.

If a student is younger than 18 years of age, any care that is sought or provided related to reproductive health is also a confidential matter and will not be disclosed to a parent unless Health Services has prior written permission from the student. In the event that a student reports abuse or there is suspected abuse the providers at Health Services are mandated to report the abuse to the Massachusetts Department of Social Services.

If a student wishes to have their records released to themselves or another facility, they must sign the medical release of records form that is available in Health Services.

Limited Exceptions

Certain communicable diseases need to be reported to the Department of Public Health and patients will be informed of this action prior to Fitchburg State College Health Services notifying the department.

Absences Due to Illness

Health Services cannot excuse a student from classes; this decision rests with the professor of that class. However, Health Services can provide students with a written statement validating when the student has been seen in Health Services, and it is the responsibility of the student to discuss their individual situation with their professor.

Student Health Insurance

Every student registered for nine or more credits is required by law to purchase health insurance. **Students must purchase the school sponsored health plan or show proof of comparable coverage in an alternate health plan in order to enroll in classes.**

After a student registers they will receive an enrollment/waiver form. All students must complete this form by either choosing to be enrolled in the Student Health Insurance Program or waiving participation by providing the policy number of an alternate insurance plan.

If a student does not complete the enrollment/waiver form, the college will automatically enroll them in the health plan and include the cost of the insurance in the tuition bill. **Students will be enrolled in the plan unless they inform the school that they do not wish to participate in the school insurance program by showing proof of comparable coverage.**

For more information regarding the Student Health Insurance Program, call the Student and Academic Life Office at (978) 665-3130 or visit the following Web sites:

- Qualifying Student Health Insurance Program site, found by going to *www.massresources.org*, then click on "Health Care Programs" and scroll down to "Qualifying Student Health Insurance Program (QSHIP)".
- 2009-2010 Student Health Insurance Plan of the Massachusetts State College System offered by Aetna Student Health at *www.aetnastudenthealth.com*. Click on "find your school" and then enter Fitchburg State College to access the university's specific policy.

Campus Police Department

The Campus Police Department, located at 32 Clinton Street, is committed to maintaining the highest level of community policing with its basic philosophy being deeply rooted in service to the entire college community. The department operates 24 hours a day, seven days a week utilizing cruiser, bike, motorcycle, and walking patrols of the entire campus and employs many students in various capacities.

Student Security Team/ Student Escort Service

The Student Security Team of the Campus Police Department provides walking escorts anywhere on campus and within a 10 minute walking radius of the campus. The student security officers have direct radio communications with campus police officers. Student escorts are available from 8 p.m to 1 a.m., seven nights a week during the school year. Escort requests at other times are handled by campus police officers. To request an escort, please call (978) 665-3111.

Emergency Call Boxes

Emergency call boxes with blue lights that connect directly to Campus Police are located throughout campus at strategic spots. When used, an officer will immediately be dispatched to that location.

Crime Prevention Programs and Presentations

Campus Police makes numerous presentations to students on a whole range of issues including theft, rape, alcohol and drug abuse. The nationally recognized R.A.D. (Rape Aggression Defense) Program is offered free of charge to female staff, students and faculty by certified R.A.D. instructors from Campus Police. The department also provides the campus with personal safety whistles, and to those individuals in more difficult situations, Screecher emergency alarms and 911 emergency phones.

Operation Identification Program

The Operation Identification Program can help identify stolen property, record the serial numbers, model numbers, brand names and description of personal property. Engravers and forms are available from Campus Police to mark personal property as a theft deterrent.

Parking Regulations

Fitchburg State College provides parking facilities for more than 1,600 vehicles. The college requires that all vehicles utilizing the parking facilities must display a valid permit. Permits may be obtained at the Housing and Residential Services Office, located in Aubuchon Hall.

Parking permits are available to both resident and commuter students, who must pay the required permit fee before the permit will be issued. Resident students with less than 24 earned credits are not eligible to purchase a resident parking permit, but may park at the Wallace Civic Center without a permit. Shuttle service from the Civic Center to campus is provided at no cost. Anyone using campus parking facilities must adhere to all parking regulations.

Handicapped Parking Permit

All permanently disabled motorists who wish to utilize the university's handicapped parking facilities need a parking permit from Housing and Residential Services and also should display a state issued handicapped plate or placard. Motor vehicles displaying a state issued parking permit or state issued plates are eligible to park in all designated college handicapped spots.

Fitchburg State College Shuttle Bus and Additional Parking

Administrative Services oversees the college shuttle service which continuously transports students, staff and faculty to and from the Wallace Civic Center parking lot (John Fitch Highway) and the main campus. The Fitchburg State College parking shuttle operates on class days during the academic year, non-stop. The schedule for shuttle service is as follows:

Sunday	4:30 p.m. midnight
Monday–Thursday	7 a.m.–midnight
Friday	7 a.m.–6:30 p.m.
Weekday holidays	4:30 p.m.–midnight

EXCEPTIONS: Sundays preceding a holiday—no service

Thanksgiving Recess—service will end at 6:30 p.m. on Wednesday Nov. 24, 2010.

During heavier usage hours an additional shuttle is available.

Expanded MART Service reaches into the Community.

Fitchburg State College has partnered with MART to provide free, comprehensive transportation service for all Fitchburg State students. You will be amazed where you Student ID will bring you throughout the Fitchburg/Leominster area.
At a nominal fee, there is additional MART service to Gardner. Services run Monday–Saturday (for more details visit: *www.mrta.us/*)

Parking Services

Campus Police and Housing and Residential Services jointly operate Parking Services functions for Fitchburg State University. The Parking Committee reviews policy and planning related to parking functions for the university, and includes student, faculty, and staff representatives. Parking lot maps and the current Parking Rules and Regulations guide are also available at both offices. The college is not responsible for any loss or damage to vehicles while parking in lots on the main campus or at the Civic Center. For more information please visit *www.fitchburgstate.edu/parking/*.

Motorist Assists

Dead batteries and keys locked in vehicles are events with which Campus Police can provide assistance. Call (978) 665-3111 or use an emergency call box.

Campus Police Web Site

For additional information about the Campus Police Department, please visit the Web site at *www.fitchburgstate.edu/campuspolice*.

STUDENT LIFE: BEYOND THE CLASSROOM

Fitchburg State University maintains that emotional, physical, social and spiritual growth extends beyond the classroom and into the total campus environment. The university offers individuals and groups a variety of avenues for self-discovery and expression. Fitchburg State students who choose to become active in campus life, by accepting new commitments and adding responsibilities, often find avenues which will direct them toward their career and other life goals. They develop significant, enduring relationships with faculty, administrators, and other students, thus establishing a support network for years to come.

New Student Orientation and Registration

The orientation program at Fitchburg State University is designed to assist incoming, full-time students in making the transition from high school or work to university. Built on a concept of student development, the orientation takes a holistic approach to addressing students' intellectual, emotional, physical, social, and spiritual dimensions.

Coordinated by the Office of Student Development, orientation helps both students and their families with the transition to Fitchburg State University and gives them a feeling for and identity with Fitchburg State University, as follows:

- Students focus on testing, academic advising, and registration for classes
- Students are introduced to campus life and services available to them through a variety of programs and activities
- The Family Program gives valuable information about the university, as well as tips for easing students' and family members' transition to Fitchburg State College

The orientation program consists of one registration day during the summer and a two day program prior to classes in the fall. All new students receive advance notification and information about the program and are expected to attend.

Housing and Residential Services

On-Campus Housing

Fitchburg State University offers a variety of housing options within the seven residence halls/complexes. The halls range from traditional residence halls, high-rise buildings, suites and apartment style units. The residence halls at Fitchburg State provide more than just a roof over your head and three square meals a day. Each hall/complex has its own unique attributes but they all provide a place to socialize, interact with fellow students and, most importantly, a place to study.

Living on campus is also very affordable when considering all the amenities included in the housing agreement, such as utilities, maintenance, local telephone service that includes call waiting, and voice mail. All residence hall rooms are connected to the university computer network (one port per resident), which provides students with access to the Internet and e-mail. Cable television, which includes more than 100 channels, is also included in every room. Housing and Residential Services also offers a number of additional services, such as a linen program, especially designed for the extra long beds in the residence hall rooms.

All residence halls are located conveniently on the perimeter of the main campus. The halls are grouped in two areas: East Campus, which consists of Mara Village, the Townhouses, and the Cedar Street House, and West Campus, which consists of Aubuchon Hall; Russell Towers, North Street Apartments, and Herlihy Hall. Each building is staffed with a building director and resident assistants (RAs). These individuals are available to assist students in working out living arrangements, guide residents in adjusting to campus life, and serve as educational and social programmers, building managers, and resource/referral aides.

Additional questions concerning on-campus housing should be directed to Housing and Residential Services, Aubuchon Hall, (978) 665-3219.

Student Development, Organizations, and Crocker Center for Community Service

Student Development and Hammond Campus Center

The Office of Student Development and Campus Center coordinates co-curricular programs and activities, and the operations of the Hammond Campus Center. The offices are committed to enhancing students' educational experiences through the development of, and participation in diverse programs and leadership activities. The Hammond Campus Center strives to serve as the focal point of the campus, bringing together members of the Fitchburg State community.

The Office of Student Development and Campus Center is the hub of extracurricular events on campus. The office is committed to the principles of leadership development, enhancing student life outside the classroom, and to providing cultural and social opportunities. The office maintains many resources regarding university student organizations and the numerous opportunities open to individual students.

Student Organizations

Student Government Association (SGA)

The Fitchburg State University Student Government Association (SGA) empowers the Student Body and represents their issues and concerns. SGA promotes greater civic and political involvement by being an active resource and partner to the Fitchburg State University community and beyond.

As the official voice of the students, the Student Government Association plays two important roles for the student body:

- Participates in campuswide committees as well as state and national student organizations
- Governs the many committees responsible for student affairs, activities, and clubs

The governing body of SGA is the SGA Council, which is comprised of an Executive Board, class representation and commuter representative. Elections for positions on these boards are held every spring for the upperclass members and in the fall for freshmen.

All executive board members (according to their constitution) of SGA and clubs and organizations must hold a minimum GPA of 2.0 for each semester and 2.5 overall.

The SGA offers a number of services to its members, including governance, photocopying, and legal advice. Student participation is welcomed and encouraged.

Clubs, Fraternities, Sororities, and Other Groups

The university is proud to support a wide variety of student organizations that encompass a broad spectrum of interests. Participation in student organizations is encouraged to round out the academic experience and develop skills which will last a lifetime.

Membership in university clubs and organizations is open to all full-time Fitchburg State University students who have paid the student activities fee. All executive board members (according to their constitution) of SGA and clubs and organizations must hold a minimum GPA of 2.0 for each semester and 2.5 overall. For meeting times and locations, contact the Office of Student Development and Campus Center.

A list of the organizations on campus includes:

Academic National Honor Societies

Alpha Lambda Delta (Freshmen)
Delta Alpha Pi (Disability Services)
Epsilon Pi Tau, Inc. (Industrial Technology)
Kappa Delta Pi (Education)
Lambda Pi Eta (Communications)
Phi Alpha Theta (History)
Pi Sigma Alpha (Political Science)
Psi Chi (Psychology)
Pi Mu Epsilon (Math)
Sigma Tau Delta (English)
Sigma Theta Tau, International Honor Society of Nursing

Academic Organizations

American Institute of Architecture Students (AIAS)
Associated Builders & Contractors (ABC)
Biology Club
Business Society
Classics Society
Economics Club
Education Club
English Club
Exercise and Sport Science
Leadership Academy Club
Math Club
National Association of Homebuilders (NAHB)
Psychology Club
Special Education Club
Student Education Association of Massachusetts (SEAM)
Student Nurses Association
Technology Education Collegiate Association (TECA)

Government

Student Government Association (SGA)
Class of 2011
Class of 2012
Class of 2013
Class of 2014

Greek Organizations

Alpha Sigma Tau
Greek Council
Order of Omega
Panhellenic
Phi Sigma Sigma
Sigma Pi
Sigma Sigma Sigma
Sigma Tau Gamma

Media Organizations

The Point
WXPL

Special Interest Clubs

Anime Club
Asian Cultural Society
Black Student Union (BSU)
Chavarium
Cheerleaders
Christian Fellowship
Commuter Club
Dance Club
Fitchburg Activities Board (FAB)
Falcon Players
Filmmakers Society
Fitchburg Cinemaique
First Responders
FSC Habitat for Humanity
Gay Straight Alliance (GSA)
Lacrosse Club
Latin American Student Organization (LASO)
Martial Arts Club
MASSPIRG (Massachusetts Public Research Group)
Rotaract
Volleyball Club

Musical Groups

Fitchburg State University offers a variety of musical programs for both the musician and the music lover.

The 60-piece Concert Band performs music of all types, from the transcriptions of classics to contemporary sounds.

The Jazz-Rock Ensemble features big band, jazz, rock, and experimental music for stage bands.

The Fitchburg State University Concert Choir and Chamber Choir perform a wide selection of mixed-voice choral pieces.

Whenever instrumentalists are available, small ensembles of various instruments, including brass, woodwind, and recorder, get together to play.

Religious Life

Many churches, synagogues, and other religious congregations are located within walking distance of the campus.

Catholic Campus Ministry

The Catholic Campus Ministry will hold weekday masses at 12:30 p.m. in Alumni C and at 11:15 a.m. on Sunday in Kent Recital Hall. The ministry can be reached at extension 3793.

Intercollegiate Athletics and Recreation Services

The Department of Intercollegiate Athletics and Recreation Services at Fitchburg State University offers every student an opportunity to pursue athletic and recreational interests on a variety of levels. These programs enhance the academic experience and provide competitive experiences to meet the needs of all students, as well as opportunities for informal recreation.

Intercollegiate Sports

The Fitchburg Falcons varsity teams have enjoyed national and regional recognition as highly competitive NCAA Division III teams. The 16 varsity teams represent men and women in both indoor and outdoor competition.

Fitchburg State is a member of 18 intercollegiate athletic associations, which entitles successful teams to participate in tournament and championship play. Fitchburg State University is a charter member of the Massachusetts State College Athletic Conference (MASCAC), which includes seven other state colleges.

The Student-Athlete Advisory Committee, composed of students and co-chaired by the director of athletics, oversees the intercollegiate sports program. They provide direction and insight to meet the interests, needs, and abilities of the student body in concert with Title IX and gender equity.

The university offers three seasons of intercollegiate varsity competition as follows:

Fall Season

Competition runs from early September through early November.

- Men: football, soccer, cross-country
- Women: soccer, field hockey, cross-country

Winter Season

Competition runs from November to early March; practice starts in late October or early November.

- Men: hockey, basketball, indoor track
- Women: basketball, indoor track

Spring Season

Competition runs from late March through early May. Baseball, softball, and lacrosse practices start in early February. Track and field practice starts once indoor track has finished its season.

- Men: track and field, baseball
- Women: track and field, softball, lacrosse

Information regarding preseason tryouts and team meetings is available in the Athletic Department and on the Athletic Department Web site at *www.fscfalcons.com*.

Athletic Eligibility

Students who wish to participate on intercollegiate teams must be full-time students and be making satisfactory progress toward a baccalaureate degree, defined as successful completion of:

- 24 semester hours of course work prior to entering their third full-time semester
- 48 semester hours of course work prior to entering their fifth full-time semester
- 72 semester hours of course work prior to entering their seventh full-time semester

Full or part-time status shall be determined by the end of the add/drop period. Students are required to successfully complete 24 semester hours of course work during their previous two full-time semesters to remain eligible. See the Academic Policies and Procedures section for academic requirements. In addition to Fitchburg State University academic requirements, students must meet the requirements of the National Collegiate Athletic Association (NCAA), Eastern College Athletic Conference (ECAC), and Massachusetts State College Athletic Conference (MASCAC).

Recreation Services

The Recreation Services program offers structured and informal opportunities for recreation in a wide variety of activities. Intramural programs are offered throughout the year in volleyball, soccer, water polo, racquetball, flag football, broomball, basketball, softball, table tennis and several other areas. Team entry forms are available at the Recreation Center and online at *www.fsc.dosportseasy.com*.

Students who prefer something more informal may use the Recreation Center's pool, fitness center, dance studio, jogging track, racquetball courts or gym at their leisure. Group fitness classes are offered in the areas of aerobics, group cycling and others.

Student Code of Conduct and Discipline System

Student Code of Conduct

Fitchburg State University recognizes that students or guests, as members of society and citizens of the United States of America, are entitled to respect, consideration, and guaranteed freedoms of speech, assembly, and association under the U.S. Constitution. The university further recognizes the students' right within the institution to freedom of inquiry and the responsible use of the services and facilities of the university.

Students at Fitchburg State University have a responsibility to act in a manner that promotes the well-being, respect, safety, and security of all members of the university community. Behavior, whether on or off-campus, that calls into question a student's suitability as a member of the academic community, or places university members at risk, will not be tolerated. Such behavior will result in disciplinary action ranging from a warning to dismissal.

The complete text of the Student Code of Conduct is available online and in print form at the Student and Academic Life Office.

Student Discipline System

The goal of the Student Discipline System is to support the educational mission of the university by insuring that an atmosphere of acceptance, curiosity, and integrity is maintained on the campus. By educating and enforcing mature and responsible behavior, the Student Discipline System promotes students' respect for the rights of others, their receptivity to new and challenging ideas, and civil and courteous behavior. The complete text of the Student Discipline System is found in the Student Conduct Handbook, which is available at the Student and Academic Life Office and online.

Good Neighbor Policy

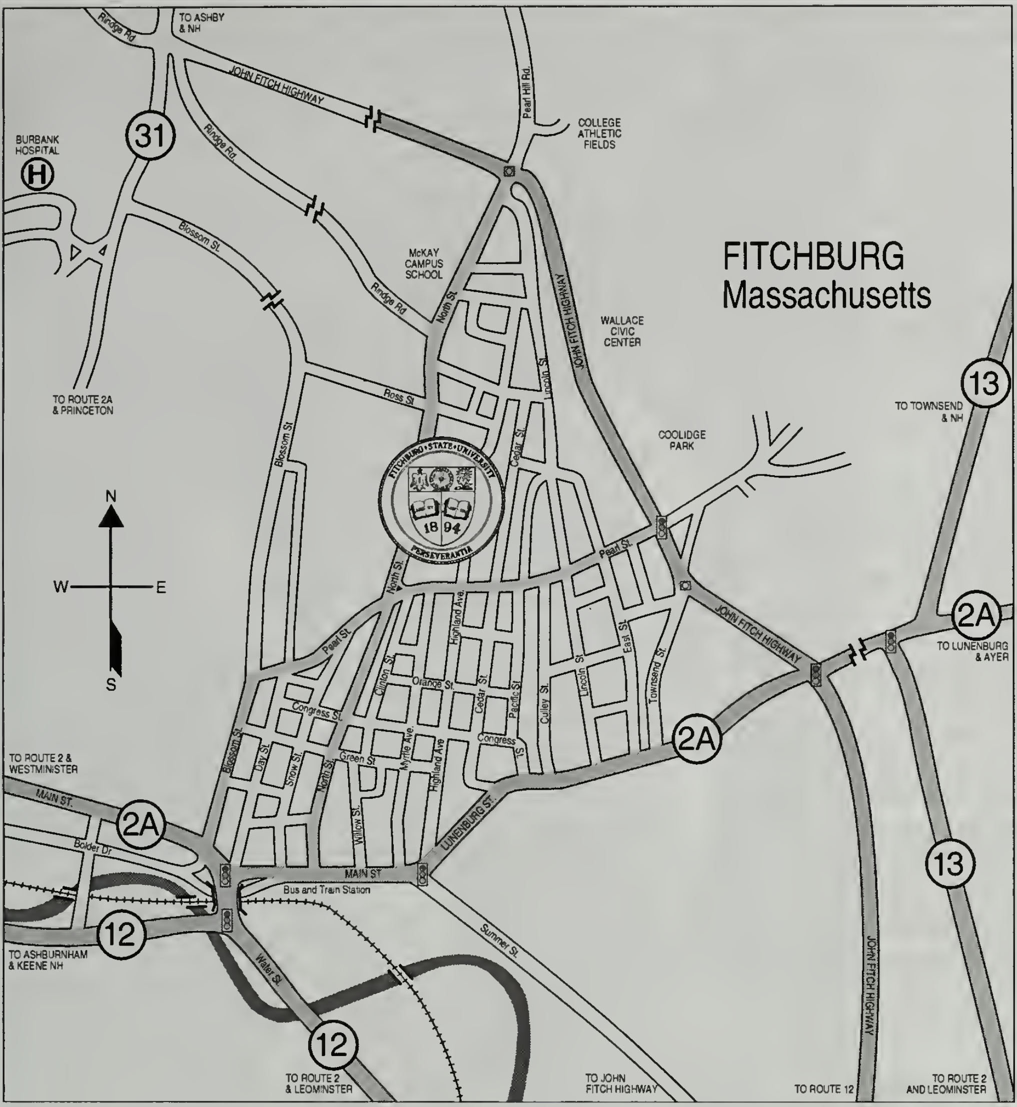
Students who reside in or visit the university neighborhood are expected to demonstrate respect and concern for all members of the local community. As such, Fitchburg State University expects students to demonstrate responsible citizenship in the local neighborhood by participating in any of the several community service opportunities available for students. Contact the Douglas and Isabella Crocker Center for Community Service for more information.

To support the goal of being good neighbors, the following conduct (and any other of a like sort) will not be tolerated and will constitute violations of university policy for which students are subject to being disciplined whether the conduct occurs on or off the campus:

- Making excessive or unreasonable noise
- Sponsoring parties for profit (the illegal sale or distribution of alcoholic beverages, which may include the use of tickets, T-shirts, mugs, cups and/or any other items as a price or condition of admission)
- Sponsoring excessively large parties
- Serving alcohol to minors
- Disorderly conduct, harassment of neighbors, defacing or damaging property, throwing objects out windows
- Public drinking, public urination
- Using, selling, or distributing illegal drugs
- Interfering with the city of Fitchburg Police Department or utility agencies in the performance of their duties
- Using, selling, manufacturing, or distributing fake IDs

Students who violate university policy and/or federal, state, or local law and, by so doing, call into question their suitability as members of the university community, are subject to the ruling of the Student Discipline System in addition to the appropriate body of federal, state, or local law. If found responsible, students are subject to sanctions up to and including loss of residence or suspension or dismissal from the university.

CAMPUS AND FACILITIES


FITCHBURG
Massachusetts
TO ASHBY & NH
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JOHN FITCH HIGHWAY
Pearl Hill Rd.
COLLEGE ATHLETIC FIELDS
31
BURBANK HOSPITAL
H
Blossom St.
McKAY CAMPUS SCHOOL
North St.
WALLACE CIVIC CENTER
TO ROUTE 2A & PRINCETON
Ross St
Lincoln St.
13
TO TOWNSEND & NH
COOLIDGE PARK
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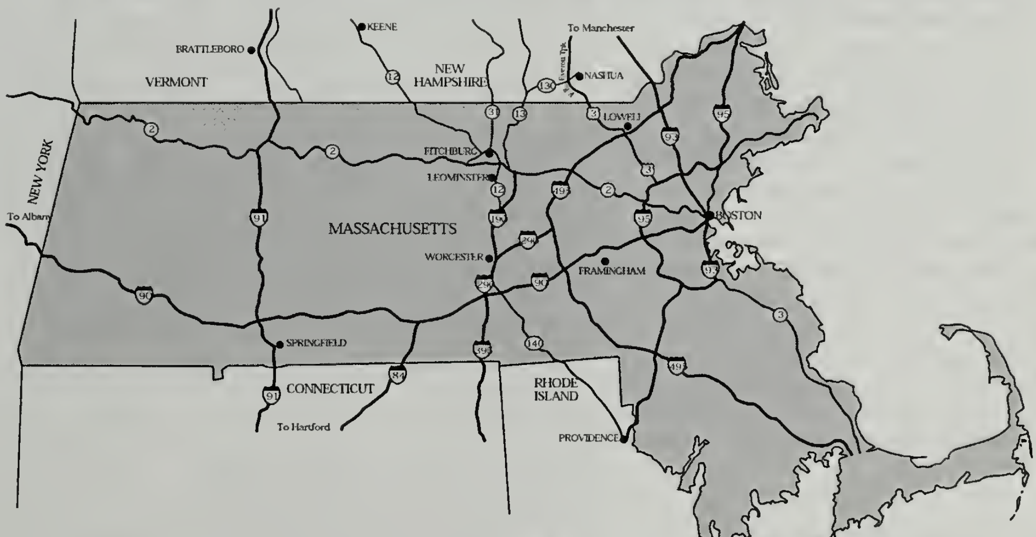
Clinton St.
Congress St.
Pacific St.
Culley St.
East St.
Townsend St.
TO ROUTE 2 & WESTMINISTER
Day St.
Snow St.
Green St.
Myrtle Ave
Highland Ave
Congress St.
MAIN ST.
Bolder Dr.
Willow St.
LUNENBURG ST
MAIN ST
Bus and Train Station
12
TO ASHBURNHAM & KEENE NH
Water St.
Summer St.
TO ROUTE 2 & LEOMINSTER
TO JOHN FITCH HIGHWAY
TO ROUTE 12
TO ROUTE 2 AND LEOMINSTER


KEENE
BRATTLEBORO
To Manchester
NEW HAMPSHIRE
VERMONT
Everett Tpk
NASHUA
130
12
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13
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LOWELL
95
93
2
FITCHBURG
LEOMINSTER
NEW YORK
To Albany
190
495
MASSACHUSETTS
91
290
WORCESTER
BOSTON
FRAMINGHAM
90
SPRINGFIELD
395
140
84
CONNECTICUT
RHODE ISLAND
To Hartford
PROVIDENCE

Directions to the University

Fitchburg State University is located in a residential section of Fitchburg, the urban center of North Worcester County. It is approximately 25 miles north of Worcester, 50 miles west of Boston and 15 miles south of New Hampshire. The compact campus of 32 buildings on 48 acres is easily accessible by car, bus, or train from all areas of New England.

By car: From within Massachusetts: Take Interstate 91, 190 or 495 to Route 2 to exit 32. Follow Route 13 north (toward Lunenburg) to Route 2A (about four miles), then take a left toward Fitchburg. At the intersection of 2A and the John Fitch Highway (about 1-1/4 miles), turn right, pass through a set of blinking lights and, at the next stop light, turn left onto Pearl Street. The university is located about 1/4 mile up Pearl Street.

From New Hampshire: Take routes 12, 13 or 31 to Fitchburg. Follow inset city map.

From Connecticut: Take either Interstate 91 or 84 to the Massachusetts Turnpike, exiting north on to Interstate 290 in Auburn. Follow 290 to Interstate 190 north to Route 2, exit immediately at exit 32 and follow directions given above for Massachusetts locations.

From Rhode Island: Take Route 146 north to Interstate 290 through Worcester exiting onto Interstate 190. Follow instructions for Massachusetts locations.

By bus or train: Daily MBTA trains to and from Boston stop on Main Street in Fitchburg. Cross Main Street to North Street. The university is three blocks north. See inset map.

Trailways buses from Pittsfield, Springfield and Worcester also stop on Main Street near the MBTA Station. Follow walking directions above.

Buses from Boston stop at the intersection of Routes 2 and 12. Cab or local bus service to the university are available from that stop.

For more information, please call (978) 345-2151.

Buildings and Grounds

Located in the unique three-mountain area known as the Montachusett region, Fitchburg State University features a traditional New England quadrangle graced by historic brick buildings. Residence units, academic buildings, the library/campus center, auditorium/theater, dining commons, Recreation Center, and other facilities are all within a short walking distance from one another. Just north of the campus is a 47-acre athletic and recreational area as well as the McKay Campus School. Other outdoor recreational opportunities are available in the 120-acre conservation area spanning three neighboring communities. Since the opening of the Recreation Center in 2000, the university has also begun an intensive capital renewal program that has included renovation of the Athletic Complex, dining hall, nursing lab, and Campus Police Station along with numerous upgrades of classroom, support and student service areas.

Campus Facilities

All students are encouraged to utilize the many campus services and facilities available, including the computer center, athletic facilities, library, and many others. Access to these facilities often requires a valid **OneCard**, which can be obtained at the OneCard office on the ground floor of the Conlon Building.

The Amelia V. Gallucci-Cirio Library

The Amelia V. Gallucci-Cirio Library, *www.fitchburgstate.edu/library*, located in the Hammond Campus Center, is a comprehensive information center dedicated to the educational development of students. A knowledgeable staff and easily accessible print and electronic collection promotes the interaction between students and resources available to them. There is easy

off-campus access to databases for all students and a wide variety of services for distributed learning students at *www.fitchburgstate.edu/library/distributed* including on-site instruction, document delivery, online and voice mail reference, and research guides.

Library Services

Hours

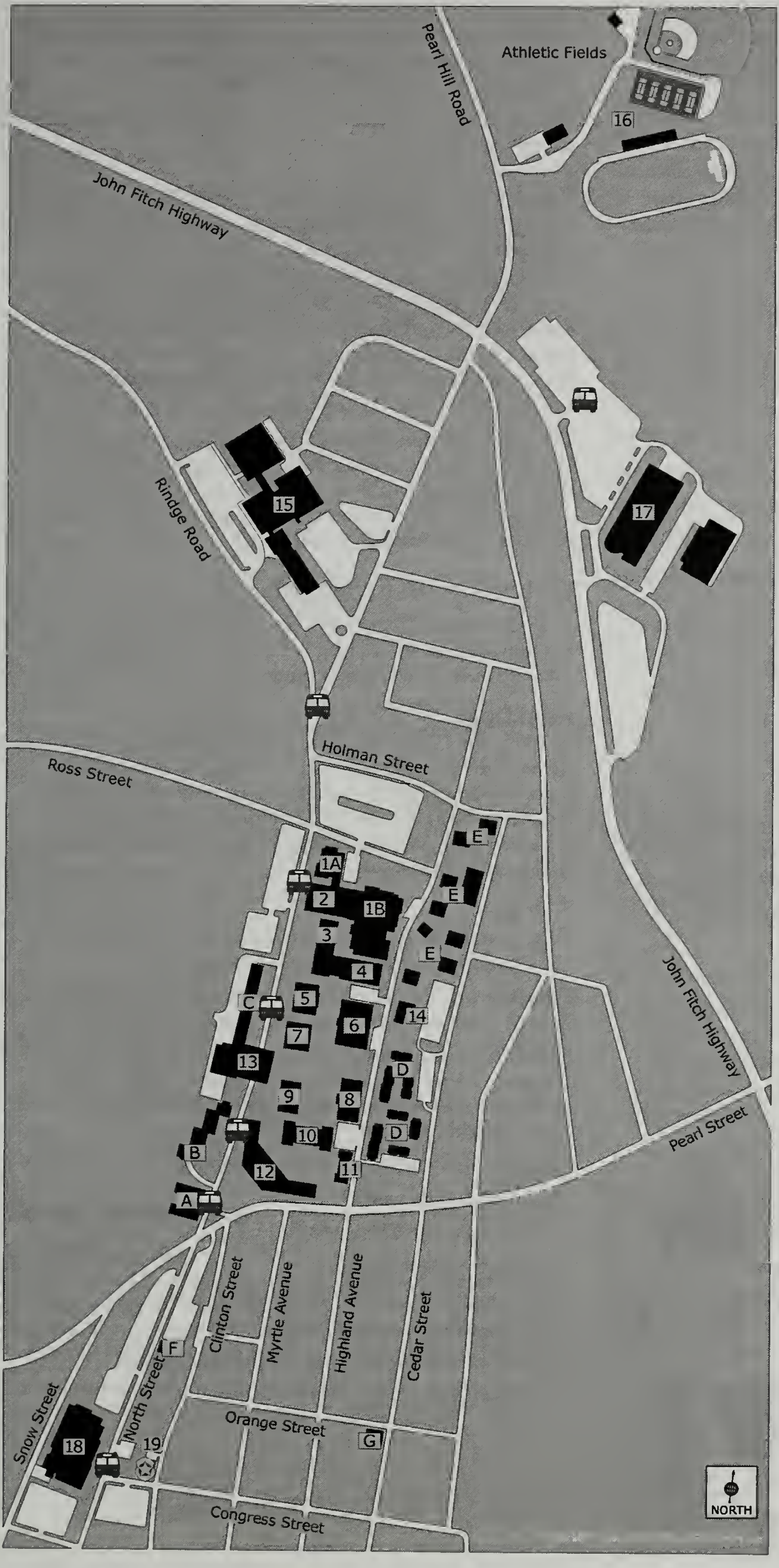
Monday–Thursday, 8 a.m.–11 p.m.; Friday, 8 a.m.–5 p.m.; Saturdays, noon–5 p.m.; Sundays, 1 p.m.–11 p.m.

Semester hours, holiday hours, exam hours, winter session hours, and summer hours are posted in the library, on the library Web site and at ext. 4478.

Services

- Access to the library's services are available from any computer on and off-campus via the library Web site
- Online Public Access Catalog, containing the listing of Fitchburg State's 229,255 books in print, electronic and microfilm format and 1961 current subscriptions.
- Easy access to 65,000 full text online periodical titles
- Free access to approximately 130 electronic online databases (encyclopedias, indexes/abstracts, directories, etc.) representing all disciplines on campus
- Education Resources Information (ERIC), a comprehensive updated education library system, including online access from 1995 to the present
- A distance learning link for library services on the library Web site
- Six month borrowing period for faculty
- Interlibrary loans for students and faculty
- Free borrowing privileges with the other Massachusetts public higher education libraries and the academic libraries of Worcester County
- The Library Instruction Program, housed in a state of the art classroom
- Seventy-five hours of reference desk availability
- Electronic Library Reserves—a Web-based reserves service allowing access from any computer location
- The Special Collections Department, which houses the university's archives and the manuscript collections of Robert Cormier and Robert Salvatore

Campus Map


Pearl Hill Road
Athletic Fields
16
John Fitch Highway
Rindge Road
15
17
Holman Street
Ross Street
E
1A
2
1B
E
3
E
4
C
5
6
7
14
13
D
9
8
D
10
B
12
11
A
John Fitch Highway
Pearl Street
Clinton Street
Myrtle Avenue
Highland Avenue
Cedar Street
F
North Street
Snow Street
Orange Street
G
18
19
Congress Street
NORTH

Campus Buildings

1. Conlon Building
   - 1A. Fine Arts
   - 1B. Industrial Technology Communications Media
2. Weston Auditorium
3. Condike Science
4. Sanders Administration
5. Parkinson Gymnasium
6. Anthony Building
   - Admissions Office
7. Dupont Facilities Building
8. Percival Hall
9. Edgerly Hall
10. Thompson Hall
11. Miller Hall
12. Hammond Campus Center
    - Amelia V. Gallucci-Cirio Library
13. Holmes Dining Commons
14. Alumni/Development
    - Mazzaferro Center
15. McKay Campus School
16. Athletic Fields
17. Wallace Civic Center
18. Recreation Center
19. Campus Police Station

Residence Halls

- A. Aubuchon Hall
  - (Parking Permits, Campus Living)
- B. Russell Towers
- C. Herlihy Residence Hall
- D. Townhouse Apartments
- E. Mara Village
- F. North Street Apartments
- G. Cedar Street House

Key

✪ Campus Police

🚌 Shuttle Stop

FITCHBURG STATE UNIVERSITY
160 Pearl Street
Fitchburg, MA 01420
(800) 705-9692
www.fsc.edu

Students are encouraged to call for complete schedule information. Service for the collection is provided by professional librarians, who assist at the Library Information Desk and also conduct library instruction classes for the university community. To arrange for such a session, students can contact the staff at the Library Information Desk at (978) 665-3223.

Hammond Campus Center

The Hammond Campus Center serves as a gathering place for both commuter and resident students. The center's facilities include:

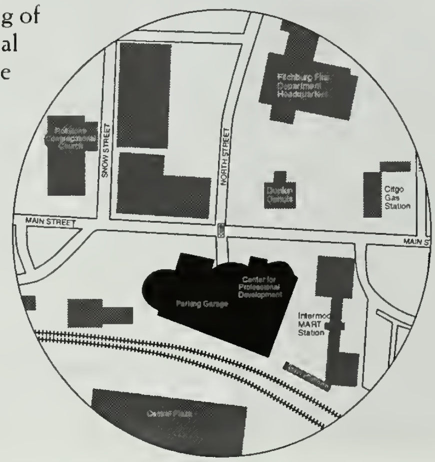
- Campus Center Art Gallery
- Campus Information Center
- University Bookstore
- Commuter Café
- Game Room
- Leadership Commons
- Meeting and Function Rooms
- Office of the Dean of Academic and Student Life
- Office of Student Development and Campus Center
- Offices of the Student Government Association; the student newspaper; The Point; the Student Design Center; and other student organization offices
- Post Office
- Student Avenue
- The Underground

Center for Italian Culture

Through an initial gift from Amelia V. Gallucci-Cirio of Phoenix, Ariz., the Center for Italian Culture was established in 1999 as one of the university's community outreach programs. Several major gifts have been added to an endowment fund that provides annual income for the cultural series, the center's Italian language and culture initiatives and scholarships. It is located in the Gallucci-Cirio Library.

Center for Professional Studies

The Center for Professional Studies (CPS) has offered professional development to working professionals for over a decade, collaborating with school districts, businesses and other professional groups on continuing educational needs. Fitchburg State University believes that excellence in education practice must be supported beyond the conferring of degrees or professional licensure. As such, the CPS is a key element of the university's total strategy, providing educational opportunities to working professionals during the critical years of induction into their profession and throughout their career.



To help address this goal, the CPS offers an extensive array of high-quality professional development opportunities for educators, business people, healthcare and other working professionals. The activities of the center include graduate courses, workshops and conferences, as well as collaboration with agencies and work force groups to provide consulting and to develop custom programs as needed.

The Center is located at 150B Main Street in Fitchburg providing convenient access to the community.

Center for Teaching and Learning

The Center for Teaching and Learning is dedicated to enhancing the teaching and learning environment at Fitchburg State University through interdisciplinary collaboration. CTL staff offer a wide variety of faculty professional development opportunities to full-time, tenure-track and adjunct faculty and librarians, including faculty talks on the scholarship of teaching and learning, instructional technology workshops, artists' presentations, and book signings.

The center is located on the first floor of the Amelia V. Gallucci-Cirio Library, just beyond the circulation desk. Center staff are available at ext. 3832 and via e-mail at *ctl@fitchburgstate.edu*. The center also maintains a Web site *www.fitchburgstate.edu/ctl/*.

Technology Department

The Technology Department is responsible for managing the campus network, academic support and administrative software development and maintenance

Help Desk

The IT Help Desk is available to all faculty, staff and students for any technology related issues. The Help Desk is located in the Conlon Building. You may also contact the Help Desk by dialing (978) 665-4500, e-mailing us at *helpdesk@fitchburgstate.edu*, or submitting a ticket online at *www.fitchburgstate.edu/technology*.

E-mail

Faculty, staff and students at the university are entitled to a Fitchburg State University e-mail account.

Faculty/staff log onto *fitchburgstate.edu/technology* and click on "e-mail" to fill out the Employee E-mail Request Form.

Students are given a *student.fitchburgstate.edu* account at Summer Orientation and Move-In. Students who are not given an e-mail account can stop by the IT Help Desk in the Conlon Building or call (978) 665-4500.

Media

Media support includes:

- Campus Cable TV
- Campus Bulletin Boards
- Multimedia equipment check in/out
- Equipment repairs and troubleshooting
- Multimedia classroom support and cart support
- Media production/event coverage

Telecommunications

The Technology Department is responsible for managing, servicing, and maintaining the campus telecommunication system. Services include:

- Daily functioning of all telephones
- Adding voice mail for all resident students
- Coordinating hardware installations and modifications
- Installing cable lines

OneCard

The OneCard is the official identification card of Fitchburg State University and issued to every student and employee. You will find that the OneCard is an essential key to campus life. Apart from being your official form of identification, it can be used for many other university services. Here are some examples:

- Chartwells dining meal plans
- Library check out of books/equipment
- Recreation Center access/equipment rental
- Computer lab printing
- Student discounts
- Building and room access in the residence halls
- Door access to certain secure labs/rooms
- Retail purchases on and off campus
- Admittance to sponsored university events
- MART buss pass

The OneCard also allows you to avoid carrying loose change on campus. Once you have added money onto your OneCard account, it can be used to pay for any of the following:

- Vending machines
- Campus laundry
- Photocopying
- Postage
- Chartwells food
- Campus bookstore
- Health Services
- Weston Box Office
- Campus Center
- Residential Housing Services

For more information about the Fitchburg State University OneCard visit the Web site at *www.fitchburgstate.edu/onecard*.

Computer Facilities

Computer Labs

The hours and locations of open computer labs are listed in the labs and are updated each semester. These hours are subject to minor changes due to course additions/deletions and because of individual workshops, training and special classes.

For questions regarding hardware/software support in the open labs contact the Information Technology Help Desk at ext. 4500.

Hammond Open Lab

The lab currently has 24 dual boot Macintosh Computers.

- Hours for the Hammond Open Lab can vary depending on holidays/vacations. The lab schedule follows the library hours during academic semesters. Closing time is one-half hour before the library closes.

Hammond Instructional Lab

This lab contains 30 dual boot Macintosh Computers and an instructor station with an LCD projector.

- Hours for the Hammond Instructional Lab can vary depending on holidays/vacations. The lab schedule follows the library hours during academic semesters. Closing time is one half hour before the library closes

McKay C-163/C-165 Lab

This lab features 20 dual boot Macintosh Computers, 9 PC's, and a mobile instructor podium equipped with a computer, a video projector and a sound system. The two computer classrooms are alternately scheduled to ensure the availability for classroom teaching and individual use at all time.

The Adaptive Computing Lab

The Adaptive Computing Lab is available to provide students with alternate access to technology. The lab is housed on the third floor of the Hammond Campus Center and has a variety of technology resources that are available for student, staff and faculty use. Some examples of software, equipment and services available through the lab include:

Software and equipment

- Text to speech software (screen readers)
- Screen magnification software
- CCTV (for magnification of text)
- Organizational software
- Voice recognition software
- Alternate input devices
- Adapted keyboards
- Ergonomic workstations

Services

- Conversion of print materials (for example, text to Braille, electronic text, large print)
- Faculty support with creating accessible curricula (lecture, media and online materials)
- Faculty and staff development workshops on adaptive technologies and universal design
- Faculty and staff development workshops on ergonomics and healthy computing

For specific information about lab resources and hours, or to arrange a workshop, please contact Disability Services at (978) 665-4020.

Computer Science Department

The Computer Science Department has additional equipment dedicated for use in that discipline, including:

- Electronic hardware and prototyping equipment to support both analog and digital laboratories
- Small microprocessor systems that allow students to work on design experiments that would be impossible or, at least impractical, on larger computer systems
- Computer networks and labs including SPARC workstations running Solaris, and Intel PCs with Windows

This provides students with state-of-the-art systems and design equipment currently being used in industry. These computer laboratories also provide the students with access to the Internet as well as a Web server for developing their own Web pages.

McKay Campus School, Teacher Education Center

The McKay Campus Schools serves as the Teacher Education Center at Fitchburg State University as well as a K-4 public elementary school for the city of Fitchburg and a 5-8 middle school arts academy pilot school. This dual mission adds a uniqueness to the teaching and learning atmosphere at McKay. This collaboration with higher education is a partnership that brings professionals together in our school setting to share:

- responsibility for the preparation of new teachers
- the professional development of experienced classroom teachers
- the professional development of university faculty serving as teacher educators
- the support of research directed at improvement of practice
- enhanced student learning for our elementary students

On-Campus Housing

A variety of resident housing options are available for students who choose to live on campus. The seven campus residence halls provide housing for more than 1,550 students. All residence halls are centrally located to classrooms, offices, the library, computer laboratories, auditoriums, and the Hammond Campus Center. Situated adjacent to the residence halls is Holmes Dining Commons, where various meal plans are offered to residence hall students. For specific information on resident housing, please refer to the Housing and Residential Services section of the catalog.

Athletic/Recreation Facilities

Fitchburg State University has a wide range of indoor and outdoor athletic and recreation facilities.

- **Recreation Center:** This state-of-the-art recreational facility opened in September 2000. The facility includes the following amenities:
    - A 1,000 seat NCAA basketball/volleyball arena
    - Three teaching stations/intramural courts
    - Suspended jogging track
    - 25 yard, six lane swimming pool
    - A dance/aerobics studio
    - Fitness Center (circuit weight machines, free weight machines, and cardiovascular machines)
    - Two racquetball/handball courts
    - Classrooms
    - Exercise Science Laboratory
    - Sports Medicine Center
    - Teaching stations
    - Locker rooms, laundry, and storage areas
    - Athletic and Recreation Services Department offices
    - Exercise and Sport Science Department offices
    - Recreation Services offices
- **Athletic Complex:** Located on Pearl Hill Road, the athletic complex is easily assessed by a walking path from the Wallace Civic Center at Fitchburg State University parking lot on John Fitch Highway. The facility includes Robert Elliot Field, a state-of-the-art synthetic turf field which serves as the practice and competition site for field hockey, football, women's lacrosse, and men's and women's soccer. The field is surrounded by an 8-lane chem-turf track. Additional facilities in the complex include locker rooms, an athletic training facility, a natural grass practice field and the baseball field.
- **George Wallace Civic Center at Fitcburg State University:** The ice hockey team practices and competes at the Civic Center on John Fitch Highway.
- **McKay Campus School:** Some intramural events are held in the gymnasium at the campus school.

The Intercollegial Athletics and Recreation Services Department schedules the use of all campus athletic facilities.

Biological Sciences Nature Preserve

The Nadine Martel Nature Preserve consists of 3.2 acres of land adjacent to the McKay Campus School on Rindge Road. The parcel was given to the college in 1999 by Nadine Cookman Martel of Fitchburg for use as an environmental laboratory in undergraduate ecology and graduate mammalogy coursework. Students have access to an ideal stream habitat for research in limnology, botany and ornithology.

Outdoor Recreation in the Montachusett Area

The name Montachusett is a conglomeration of the names for the three mountains that surround the university. Mt. Monadnock, Mt. Watatic, and Mt. Wachusett offer trails for hiking and slopes for skiing. Students are encouraged to take advantage of this rugged terrain with free rentals of cross-country skis, canoes, and tents from the Student Activities office.

Animals on Campus

Due to health and safety considerations, no animals are allowed on campus or in campus buildings at any time. The only exceptions are service animals and laboratory animals.

THE CURRICULUM

Incoming Students: The Readiness Program

All first-year students will be tested or otherwise evaluated upon entrance to Fitchburg State University to determine their proficiencies in reading, writing and mathematics. Exams are scheduled both days and evenings throughout the academic year. Test results may indicate skill areas which will be strengthened by a readiness program to provide new students with a solid and equal start to their college careers.

The Admissions office will provide your SAT scores to the Placement Test Center. Students who have a critical reading SAT score between 500 and 599 (or English ACT between 21 and 26) are exempt from taking the Reading placement test. Also, students who have a critical reading SAT score of 600 (or ACT of 27) or above are exempt from the Reading and Writing placement tests. Students who have earned a score of 3.0 or better on the Advanced Placement (AP) English Examination are exempt from the reading and writing placement exams.

Transfer students from the Massachusetts community college system, Massachusetts state colleges and the University of Massachusetts who have taken the ACCUPLACER exams and received scores of 82 or higher in Math and/or Writeplacer scores of 6 or higher or have taken first level accepted transfer courses will not need to take the ACCUPLACER testing. All other transfer students will need to take the ACCUPLACER testing unless they have transferred in first level courses in English or Calculus I.

At Fitchburg State University, each curriculum or course of study has been constructed to help students develop the intellectual skills needed to analyze, interpret and learn. The purpose of every curriculum is to assist students in recognizing the possibilities as well as the problems of their changing world, to instill within them a moral awareness of their responsibilities toward improving the quality of human life and to prepare them for careers which will enrich their lives as they contribute to the lives of others.

Each curriculum includes a Liberal Arts and Sciences Program and courses in a major field of study. The purpose of the Liberal Arts and Sciences requirements is to develop, through a variety of academic disciplines, a set of well-rounded skills that are analytic and quantitative as well as verbal and aesthetic. By concentrating in a major field of interest, students acquire knowledge of both the theoretical and the practical aspects of their subject.

Transfer Nursing students are required to pass the Algebra placement Test even if they have transferred in the required Applied Statistics course.

Readiness Program/Comprehensive Courses and Requirements

ENGL 0100 Basic College Writing—required for first-year students who score 4 or lower on essay and if they have no transfer credit equivalent to Writing I and/or Writing II.

Students who score 8 on the essay will be exempted from Writing I and should enroll in ENGL 1200, Writing II.

MATH 0100 Basic Mathematics I—available for students who score below 50 on the placement exam.

MATH 0200 Basic Mathematics II—required for students who score below 82 on the placement exam. Transfer students who fail the mathematics examination will not be required to take these courses unless they wish to enroll in a mathematics course at the 1000-level or above.

Credit for ENGL 0100, MATH 0100 and MATH 0200 is considered institutional credit only; that is, the credit will not count toward graduation, but will count toward full-time status for purposes of financial aid and athletic eligibility. Additionally, the grades received in these courses will be counted in each student's grade point average.

Foreign Language Placement Exam Requirement

This required assessment is designed to assist students to achieve their foreign language education goals. French, German and Spanish tests are administered through the Internet. Immediately after the test, you will receive your results and be advised as to the proper Fitchburg State University foreign language course in which you should enroll based on your placement score.

Latin is a pencil and paper exam. A Latin score that places the student higher than intermediate level 2 satisfies the foreign language graduation requirement for the bachelor of arts degree or The Leadership Academy program.

Students planning to take French, German, Spanish or Latin are required to take a placement test if they meet one of the following conditions:

- Completed a high school level French, German, Spanish or Latin course
- One of these languages is their native language or they have had experience with the language

Students who have not had any formal or informal experience with a foreign language do not need to take the placement test, but may register for French for Beginners (FREN 1000), German for Beginners (GER 1000), Spanish for Beginners (SPAN 1000), or Italian for Beginners (ITAL 1000).

Common Graduation Requirements

In order to be eligible to graduate with a baccalaureate degree from Fitchburg State University, the following general requirements must be met:

- Successful completion of an appropriate discipline-based evaluation chosen by the department and approved by the vice president for academic affairs
- Successful completion of at least 120 semester hours of course work; 45 of these must be attained in residence (normally including the senior year)
- A cumulative GPA of 2.0 or higher
- A minimum of 2.0 average in major course of study*
- An Application for Degree or Certificate must be filed with the Registrar's Office no later than September 15 for May graduation or March 1 for January graduation.

* Some majors require a major GPA higher than 2.0 for graduation.

Graduation

Degrees are awarded by Fitchburg State University in January and May of each year.

Students may petition the associate vice president for academic affairs to participate in the annual graduation ceremony if they have a maximum of two courses, up to 12 credits to complete.

Liberal Arts and Sciences Program Requirement

The university has approved new Liberal Arts and Sciences Program requirements which became effective for all entering students starting in fall 2008.

Of the 120 semester hours needed to graduate, candidates must complete a minimum of 48 hours to satisfy the requirements of the Liberal Arts and Sciences Program, including the following components:

- **The Arts Cluster** ("ART" symbol in course schedule)—at least five courses, two must fulfill the writing I and II requirement, one must be an art or music course (AOM), and one must be a literature course (LIT)
- **The Science, Math and Technology Cluster** ("SMT")—at least **four** courses, one must be a math, one must be a lab science, and one must fulfill the health and fitness requirement
- **The Citizenship and the World Cluster** (CTW)—at least **three** courses, one must be a human behavior course, and one must be a history course ("HIST")
- **Global Diversity**—at least **two** courses in at least two clusters. At least **one** of these courses must address a non-western region or culture
- Each student will select one of the following options with their academic advisor:
    - **Option A:** 6 credits in a single foreign language, and 6 credits from a single discipline outside of the student's first major, on the 2000 level or above of LA&S courses (either from a recognized LA&S discipline or LA&S designated courses from a discipline that is not recognized as LA&S).
    - **Option B:** 12 credits (with a minimum of 6 credits on the 2000 level or above) in a single recognized LA&S discipline outside of the student's first major, or 12 credits towards a LA&S minor (with a minimum of 6 credits on the 2000 level or above).
    - **Option C:** Designed curriculum submitted by the completion of 60 credits. The student, working with an advisor, develops a unique curriculum based on his or her interests, needs, and/or goals. The curriculum, with a statement of its rationale, must be approved by the advisor, the department chair, and the appropriate dean, and then filed with the registrar. The curriculum must include a minimum of 12 credits, as least 6 of which must be at the 2000 level or above. These 12 credits must be LA&S courses (either from a recognized LA&S discipline or LA&S designated courses from a discipline that is not recognized as LA&S), and no more than one of the courses may be from the student's first major.
    - Each student must also complete computer literacy, speaking/listening, and junior/senior writing requirements, as defined by each major.

Candidates should be aware that the following restrictions apply with respect to fulfilling their Liberal Arts and Sciences requirements:

- Credits earned in one course cannot be divided
- Credits earned toward graduation cannot be counted twice, even though courses that satisfy Liberal Arts and Sciences requirements may sometimes fulfill the requirements of one's major course of study
- Certain majors specify which courses must be taken to satisfy Liberal Arts and Sciences requirements. Students should read the section pertaining to their selected major carefully before registering for classes.

Additional course work required for graduation from individual programs and certificates

Initial teacher licensure requires knowledge of the federal Constitution and that of the Commonwealth. Candidates may fulfill it by successfully completing one of the following courses:

HIST	*1400*	*United States History I*
HIST	*1500*	*United States History II*
POLS	*1500*	*State and Urban Government*
POLS	*1000*	*U.S. Government*

Leadership Academy Honors Program

Leadership Academy Honors Program students complete LAS requirements through a specialized set of courses. See the Leadership Academy section.

Major Course of Study

Candidates must choose a major course of study, either at the time of enrollment or before the end of their sophomore year. The requirements of the major vary from 33 to 63 semester hours. Students must formally apply to their major by filling out a form available from the Academic Advising Center, the Registrar's Office or from the chair of the department.

Changing a Major or Degree Program

Students may change their major or degree program as long as they can meet the requirements for their new major. Frequently changing one's major increases the amount of time required to complete the baccalaureate program, and not all programs (such as nursing) can accept applicants who wish to transfer to that field.

Programs having requirements for internal transfer are communications media, human services, clinical laboratory science, nursing and education.

Double Major

Degree candidates wishing to earn a baccalaureate with two majors must satisfy the requirements of both programs, even if doing so requires more than 120 semester hours of study. All students receiving a Bachelor of Science in Education must also complete a major in an arts and sciences discipline.

Double major candidates

- Enroll for the second major as they did for the first
- Are assigned an advisor in each major
- Select which degree is to be granted—the bachelor of arts, bachelor of science, or bachelor of science in education—since only one degree is permissible

Academic Minor

The academic minor is an ideal way to explore a field other than that of one's major. Students must apply for a minor and can find the form to do this online at the registrar's website. Students must have a 2.0 minor GPA to be awarded a minor. Some minors may require higher GPAs.

Minors are offered in American studies, African-American studies, art, biology, business administration, chemistry, communications studies, computer science, criminal justice, economics, English, French, geography, graphics, history, industrial/organizational psychology, industrial science, international studies, Italian studies, mathematics, music, peace studies, philosophy, political science, psychology, romance languages, social sciences, sociology, Spanish, special education, theater, and women's studies. Not all minors are available in the evening.

Although the minimum number of credits required for a minor is 15, the amounts vary significantly from discipline to discipline, as do the prerequisites. See the Undergraduate Programs section of the catalog for further information.

Degrees Offered

Fitchburg State University offers three undergraduate degrees:

- Bachelor of arts
- Bachelor of science
- Bachelor of science in education

Each degree has its own specific requirements for graduation. Students may be awarded only one degree unless they have fulfilled the provisions for a double degree.

Two Degrees

Students wishing to earn two bachelor's degrees may do so by satisfying the degree requirements for the two programs prior to receiving the second degree. They must earn 30 semester hours credit beyond the 120 hours required for the first degree.

Program Alternatives

Students may take advantage of a number of program options designed to help degree candidates tailor their course of studies to best suit their individual needs.

Leadership Academy Honors Program

The Leadership Academy is a coordinated four-year honors program offering an enriched curriculum for full-time undergraduate students with very high academic achievements.

Freshmen are invited to join the Leadership Academy based on their high school grades and preparation, SAT scores, rank in class, and leadership potential.

For further information, see the Leadership Academy Program in the Undergraduate Day Programs section.

Transfer students, those transferring from other two or four-year colleges, and students who have been at Fitchburg State University for one semester to a year may apply for acceptance to the Leadership Academy. External transfer students should contact the Admissions Office for acceptance. Internal transfers should contact the director of the Leadership Academy.

Life Experience Credit Award Program

The Life Experience Credit Award Program (LECAP) recognizes that some students may have acquired knowledge and skills through life experiences as well as through formal credit courses. This program allows students the opportunity to ask that their life experiences be evaluated as educational experiences and credited toward an undergraduate college degree. Credit may be awarded for academically verifiable college-level learning acquired through professional experiences, service, noncredit institution, community learning and educational travel. For further information call (978) 665-3321 or (978) 665-3319.

Independent Study

Independent study allows students to step outside of course offerings and explore a specialized area of study in a challenging and new environment. Students are encouraged to seek out independent study opportunities under the guidance and supervision of a professor in whose specialization they wish to study. A regularly offered course cannot be given as independent study. Independent study programs and the amount of credit earned from them must meet the approval of the professor, the advisor, and department chair involved, with final approval coming from the dean of student and academic life (for day students) or the associate dean of graduate and continuing education (for evening students). A GPA of 2.5 is required for application. Usually, only three credits of independent study per semester may be attempted.

Directed Study

Directed study allows a student to carry out a non-research project or participate in an activity under the direct supervision of a faculty member. In exceptional circumstances, it can be used to offer an existing courses to an individual student. All directed study require a 2.5 cumulative GPA, written application from student, and approval of faculty sponsor, advisor, department chair and student and academic life (for day students) or the associate dean of graduate and continuing education (for evening students).

Study Abroad Opportunities

Through the Office of International Education, Fitchburg State University students have the exciting opportunity to study in another country. Affordable semester and summer programs are offered in several locations throughout the world, including the U.K., Australia, Spain, France, Ireland, Italy, Finland and Quebec, Canada. Several types of financial aid can be applied to most of these programs. Students work with the director of international education, their advisor and the Registrar's Office to have their coursework from an overseas university approved before they leave the U.S. For further information, please contact the Office of International Education at (978) 665-3089.

CAPS: College Academic Program Sharing

CAPS allows students the opportunity to enroll in up to 30 semester hours of courses at another state college without going through formal registration procedures, thus giving them a chance to enjoy a more varied educational experience.

To participate in this program, degree candidates must:

- Have attained sophomore status
- Have spent at least one semester in residence at Fitchburg State University
- Be in good academic standing
- Attain approval to enroll in CAPS from the chair of their major department prior to registering for the semester
- Contact the Registrar's Office for approval if their major is undeclared
- File a CAPS request with the Registrar's Office

Distance Learning Center

The Distance Learning Center at Fitchburg State University provides students the opportunity to complete university coursework at a distance from the university. Distance learning courses are offered in a variety of ways. The two most common means are over-the-air courses, taught with a connection to a Fitchburg State instructor (these may involve some on-campus meetings), and courses taught over computer network, in which the student is assigned a faculty mentor who communicates with the student, guides the student's progress and evaluates student work. Distance learning courses originating from Fitchburg State are taken by students both within and outside the United States. Courses are offered on both the bachelor's and master's levels. Students register for these courses through Graduate and Continuing Education programs by calling the Registrar's Office. Appropriate tuition and fees apply.

Indian Hill Music Center

Fitchburg State University and the Indian Hill Music Center have a collaborative agreement by which students may take private lesson instruction at Indian Hill for university credit. See department chair, Humanities, for more information.

Center for Professional Studies

The Center for Professional Studies (CPS) has offered professional development to working professionals for over a decade, collaborating with school districts, businesses and other professional groups on continuing educational needs. Fitchburg State University believes that excellence in education practice must be supported beyond the conferring of degrees or professional licensure. As such, the CPS is a key element of the university's total strategy, providing educational opportunities to working professionals during the critical years of induction into their profession and throughout their career.

To help address this goal, the CPS offers an extensive array of high-quality professional development opportunities for educators, business people, healthcare and other working professionals. The activities of the center include graduate courses, workshops and conferences, as well as collaboration with agencies and work force groups to provide consulting and to develop custom programs as needed.

The Center is located at 150B Main Street in Fitchburg providing convenient access to the community.

Fitchburg State University Extended Campus Programs

Extended Campus Programs provide quality educational opportunities to constituents seeking professional development and/or formal study in academic degree programs offered through Fitchburg State University. Working within Graduate and Continuing Education, and collaboratively with faculty, school administrators, industry leaders, and various educational enterprises, Extended Campus Programs coordinate the delivery of undergraduate and graduate courses at off-campus locations.

Currently, Extended Campus Programs has well established collaborative relationships providing degree, certificate and professional development programs with Catherine Leahy-Brine Educational Consultants, Hampshire Educational Collaborative, Jon L. Jenmarc, Lowell Public Schools, MAVA-Massachusetts Association of Vocational Administrators, the May Institute, Merrimack Education center, NYPRO, and Research for Better Teaching. Additionally, professional development courses and institutes are offered through partnerships with school districts, museum schools, educational collaboratives and private entities.

The Teaching American History Program

The Teaching American History Program is a partnership among Fitchburg State University and Fitchburg Public Schools, Mount Wachusett Community College and nine other public school districts. It is a grant funded program which will strengthen the knowledge base in American history for middle and high school teachers in an effort to provide them with an opportunity to enhance and deepen their understanding of the significant issues, episodes and turning points in the history of the United States. The importance of this program is underscored by the fact that in the near future all Massachusetts high school students will be required to pass the state standards test in U.S. history.

The program consists of the following six graduate level courses:

- America and the Atlantic World (1450–1787)
- Democracy in America (1787–1876)
- Remaking America (1877–1941)
- Immigration and the American Identity (1880–1950)
- A Century of Civil Rights in America (1865–current)
- American Century: U.S. Foreign Policy (1898–current)

All six courses will be taught at both Fitchburg State University and Mount Wachusett Community College making it easily accessible to all participating school districts.

Meeting the Challenge

Meeting the Challenge is an initial licensure scholarship program designed to prepare special education teachers in the high-need urban school districts of Fitchburg, Leominster, Lowell and Worcester. Meeting the Challenge supports professionals who currently teach students with high incidence disabilities, providing 33 credits toward a master's degree in special education. Funded through a grant from the U.S. Department of Education Office of Special Education and Rehabilitative Services, this graduate program is designed to:

- Provide initial licensure to special education teachers employed on a waiver
- Provide initial licensure preparation for paraprofessionals working in special education classrooms who have bachelor's degrees in other fields
- Offer professional development programs for new special education teachers (those in their first three years of teaching) to address and alleviate the high incidence of attrition experienced by these districts.

Departmental Policies

Behavioral Sciences, Human Services Program: Policies Governing Student Admission, Review, Retention and Dismissal, and Internship Eligibility

Admission to the Human Services Program

Students may enter the Human Services Program either by declaring it as a major upon admission to the university (as a freshman or an external transfer) or by transferring into Human Services from another major at Fitchburg State University (internal transfer, including re-admission from another major at Fitchburg State University).

Transfer into the Human Services Program necessitates a determination of suitability for a career in the human services field, which will be assessed in an interview with one or more Human Services Program faculty, and meeting the following academic standards:

- At least a 2.0 cumulative grade point average overall;
- A minimum cumulative grade point average of 2.5 in all required LAS information courses taken prior to applying for the transfer: (i.e., Abnormal Psychology, Human Growth & Development, and Introduction to Sociology);

- A minimum cumulative grade point average of 2.5 in all Human Services core courses taken prior to applying for the transfer (i.e., Introduction to Human Services, Research Methods in Human Service Practice, Interviewing Techniques, Group Work, Managing the Non-Profit Agency, Assessment & Intervention, Professional Issues in Human Services, Case Management); and
- Individual grades of at least 2.5 in all of the Human Services skill component courses taken prior to applying for the transfer (i.e., Interviewing Techniques, Group Work, Assessment & Intervention, Case Management).

Former Human Services majors who wish to be readmitted to the Program upon readmission to the university must meet the same academic standards as transfer students and may need to be interviewed by a Human Services faculty member.

Review, Retention and Dismissal

Human Services Review Committee (HSRC)

Members of the committee are full-time faculty who teach and/or advise students in the Human Services Program. The HSRC is responsible for implementing all student-related policies of the program.

Progress Assessment

All students will be subject to retention review by the Human Services Review Committee following completion of each of the skill component courses. Retention will be based upon suitability for a career in the human services field, specifically:

- A cumulative grade point average of at least 2.5 in required LA&S information courses: (Abnormal Psychology, Human Growth & Development, Introduction to Sociology);
- Skills in written and oral communication, and computer literacy, as exhibited by a cumulative grade point average of at least 2.5 in appropriate courses or by demonstration;
- A cumulative grade point average of at least 2.5 in required Human Services core courses: Introduction to Human Services, Research Methods in Human Service Practice, Interviewing Techniques, Group Work, Managing the Not-for-Profit Agency,. Assessment & Intervention, Professional Issues in Human Services, and Case Management;
- Individual grades of 2.5 or higher in the four skill component courses: Interviewing Techniques, Group Work, Assessment & Intervention, and Case Management; and
- Appropriate emotional stability and interpersonal behavior, as demonstrated in classroom deportment and a minimum grade equivalent of 2.5 in supervisors' evaluations of each of the student's field practice (practicum) experiences (150 hours minimum).

Students whose cumulative grade point average in Human Services core courses falls between 2.0 and 2.49, and whose grade in each skill component course is at least a 2.5, will be reviewed for retention in the program, and a written remedial plan may be developed by the Human Services Review Committee in conjunction with the student.

Students whose cumulative grade point average in Human Services core courses is 2.0 or less, and students who receive a grade of less than 2.5 in a skill component course (Interviewing Techniques, Group Work, Assessment & Intervention, or Case Management) will automatically be reviewed, and a remedial plan will be developed if advisable. A student who receives less than a 2.5 in any two of these four skill component courses would be deemed inappropriate for the program and would typically be dismissed. In addition, students who fail to complete a remedial plan developed by the committee and students who fail to demonstrate appropriate emotional stability and interpersonal behaviors will be reviewed for dismissal from the program.

If a student's dismissal from the program is warranted after review by the committee, the student will be informed in writing as to: (a) the reason for dismissal, and (b) the procedure for appeal. The Human Services Review Committee will notify the chairperson of the Behavioral Sciences Department, who will then recommend to the dean of student and academic life that said student not be retained in the Human Services Program.

Internship Eligibility

Successful completion of an internship is required for graduation from the Human Services Program. Admission to the major does not guarantee a student entry into an internship. Eligibility for an internship is based upon the following requirements and criteria:

General Requirements

- Students must attends the scheduled meetings for internship planning and registration, and required preparatory workshop on practical interviewing and resume writing during the semester before Internship is undertaken.
- Students must complete the internship application process within the scheduled deadlines. Failure to adhere to deadlines may result in a student being denied admission to internship.

Eligibility Criteria

- **A cumulative grade point average of at least 2.5 in:** (Abnormal Psychology, Human Growth & Development, and Introduction to Sociology);
- Skills in written and oral communication, and computer literacy, as exhibited by a **cumulative grade point average of at least 2.5 in appropriate courses** or by demonstration;
- A cumulative grade point average of at least 2.5 in required Human Services core courses: (Introduction to Human Services, Research Methods in Human Service Practice, Interviewing Techniques, Group Work, Managing the Not-for-Profit Agency, Assessment & Intervention, Professional Issues in Human Services, and Case Management);
- **Individual grades of 2.5 or higher in the four skill component courses:** (Interviewing Techniques, Group Work, Assessment & Intervention, and Case Management);
- Appropriate emotional stability and interpersonal behavior, as demonstrated in classroom deportment and a minimum equivalent grade of 2.5 in evaluations of each of the student's field practice (practicum) experiences (150 hours minimum);
- Positive recommendations from a majority of Human Services faculty;

- No incomplete grades or unresolved failures in any Human Services core courses or electives, and no probationary status in the Human Services major;
- A minimum of 150 hours of supervised practice in field experiences (course related practica).

Students who do not meet these specific eligibility criteria for internship may request, in writing, that the Human Services Review Committee consider waiving the policy(ies) in question. Applications for waivers of criteria must be submitted at the same time as the application for internship.

Eligibility for Graduation

Students must demonstrate proficiency as human service workers by achieving a satifactory rating on the Field Supervisor's Evaluation of Internship and a minimum grade of 2.5 in Internship in Human Services (HMSV 4780-4880 or HMSV 4890) based on the criteria established in the syllabus. Any student whose average on the Field Supervisor's evaluation is below 2.5 and/or whose grade in Internship is within the passing range but below 2.5 will be required to meet with the Human Services Review Committee to establish a remedial plan. A remedial plan may include (but not be limited to) repeating Internship once in a future semester to receive a satisfactory evaluation and grade. In the event that a remedial plan is not appropriate, or the student does not agree to such, the student will be dismissed from the Program immediately. A student who, upon repeating the internship, again fails to attain a satisfactory evaluation and grade will be dismissed from the program.

Academic Progress Review Policy: Biology

Students in the Biology major must maintain a GPA above 2.0 in the science and math courses that count toward their major, including courses in BIOL, CHEM, PHYS or GEOG. If that GPA falls below 2.0 at the end of any semester, the student will be placed on departmental probation. To continue in the major, the student must:

1. Meet with the academic advisor before the second week of each semester to review current course load and arrange periodic meetings throughout the semester.
2. During the first two weeks of each semester, develop a plan for improvement with at least one of the academic support systems on campus(Academic Advising Center, Tutor Center, Counseling Services, Expanding Horizons, etc.)

After being put on probation students will be dismissed from the Biology major if the GPAs in these courses remain below 2.0 for two consecutive semesters. If dismissed from the major, students may appeal for reinstatement to the departmental Student Affairs Committee who will forward their decision to the Department Chair.

Progress Review Policy: Communications Media Program

- It is the responsibility of all Communications Media students to meet with their advisors each semester for preregistration advisement and progress review. During that review, the student's progress through the curriculum is discussed, with particular attention paid to whether or not the student is maintaining the 2.5 GPA or higher required to participate in the capstone internship experience.
- Any student with a GPA below 2.5 in the major who has completed the two introductory theory courses—Message Design, and Introduction to Communication and Media Studies—and the first three required courses in their concentration will be referred to the chair with the recommendation that the student be dropped from the Communications Media concentration.
- Any transfer student who has transferred nine or more credits toward the major must earn a GPA of 2.5 or higher in the first two required courses in their Communications Media concentration or be referred to the chair with a recommendation that they be dropped from that concentration.
- Students who are recommended to be dropped from a concentration may petition the chair in writing to a) switch to another Communications Media concentration (capacity permitting at the time of the petition); or b) appeal the advisor's drop recommendation. If, with respect to (b), the chair decides to uphold the advisor's drop recommendation, the student may appeal that decision to the dean of student and academic life.
- Students must maintain at least a 2.5 GPA in Communications Media coursework to qualify for the capstone internship experience.
- The internships are described in detail in the Communications Media Internship Handbook.

Progress Review Policy: Criminal Justice Programs

If a student's GPA in the CJ Core/CJ Required courses falls below 2.5, the students will be reviewed for retention in the program, and a remedial plan developed, if advisable. The Criminal Justice Review Committee (CJRC) will make the decision, taking into account the student's GPA in the major, the student's overall GPA, and the student's appreciable ability to perform in the profession. If a remedial plan is not advisable, the student will be dismissed from the major and advised accordingly in writing as to the reasons for the dismissal and the procedures for appealing the decision. The CJRC will notify the chair of the Behavioral Sciences Department, who would then notify the dean of student and academic life that the student would no longer be retained in the major.

Students in the major may repeat a CJ Core/CJ Required course in which they have achieved a failing grade one time. Failure to achieve at least a 2.0 when the course is repeated results in dismissal from the major. Students may appeal these decisions by bringing the issue to the attention of in order (1) the Criminal Justice Review Committee; (2) the chairperson, Department of Behavioral Sciences and (3) the dean of student and academic life.

English Department—Theatre Performance Review Policy

- In order to be eligible to perform in English Theater Main Stage productions and/or participate in The Kennedy College Theater Festival, students must hold a minimum GPA of 2.5 and have no incompletes or grades of 0.0 from the previous semester.
- The chair of the English Department will work with appropriate offices in Academic Affairs to ascertain students' academic records based on the above guidelines.

Exercise and Sport Science Program

If a student's cumulative GPA in the major falls below 2.5 at the end of any semester that student will be placed on departmental probation. To avoid removal from the major, the student must meet the following criteria:

- A student on probation who has attempted fewer than 33 semester hours and who has maintained a cumulative GPA of 2.1 or higher in major courses may enroll for a third semester to improve academic standing.
- A student on probation who has attempted 33 to 59 semester hours and who has maintained a cumulative GPA of 2.1 or higher in major courses may enroll for a fifth semester to improve academic standing.

Students on probation must:

- Meet with their academic advisors before the start of the second week of each semester to review current course load and arrange periodic meetings throughout the semester.
- Contact the Academic Advising Center during the first two weeks of the semester.
- Utilize the many resources the university offers, including faculty, Counseling Services, Academic Success Centers, Expanding Horizons, Career Services, and other support systems, as needed.

Students not making satisfactory progress in completing the academic requirements of the major for two consecutive semesters will be required to leave the Exercise and Sport Science major.

Appeal Process

Any student required to leave the Exercise and Sport Science major due to deficient academic progress may appeal to the Exercise and Sport Science Academic Standing Committee. The student will be allowed to present evidence of significant extenuating circumstances and will be allowed to have parent(s)/guardian(s) present during this hearing, who may also present relevant evidence. The Academic Standing Committee will take this information into consideration and issue a recommendation to the chair of the Exercise and Sport Science Department within 24 hours following the hearing. The Exercise and Sport Science Department Chair will notify the student within three (3) days of the departmental ruling.

Exercise Science Review Committee

In accordance with the above departmental policies, a subcommittee of the departmental curriculum committee meets each semester to review and decide on student matters; for example, whether a student should continue in the major, and plans of action for students struggling to maintain acceptable GPAs. The academic advisor will subsequently meet with students whose progress is in question. There is no student representation on this sub-committee for confidentiality reasons.

Nursing

- All undergraduate students in the nursing pre-major must achieve a grade of 2.5 or better in the following prerequisite courses: BIOL 1200 Anatomy and Physiology I, BIOL 1300 Anatomy and Physiology II, and CHEM 1200 Elements of Human Biochemistry & Organic Chemistry, to be eligible to enroll in any nursing course.
- In addition, in order to progress into the major (sophomore year), students must achieve a grade of 82 or above on the Accuplacer Math Readiness Exam. Students failing to achieve a minimum score of 82 must complete Basic Math II with a grade of 2.0 or better.
- During the sophomore year, students must achieve a grade of 2.5 or better in BIOL 2700 Survey of Microorganisms and BIOL 1650 Nutrition in order to progress to all junior nursing courses.
- To be in good standing in the major, nursing students must achieve a minimum grade of 2.5 or better in each nursing course.

This policy is in effect for students in the Class of 2011. To be in good standing in the major, nursing students must achieve a **MINIMUM GRADE OF 2.5 OR BETTER IN EACH NURS COURSE**. A student may fail one nursing course once throughout the entire nursing program. Juniors or seniors who fail one nursing course will be allowed to repeat that course the following semester. Failure to achieve a grade of 2.5 or better when the course is repeated will result in dismissal from the major. Any subsequent grade of less than 2.5 in any other nursing course will result in dismissal from the major.

This policy is in effect for students in the Class of 2012 and beyond. To be in good standing in the major, nursing students must achieve a **MINIMUM GRADE OF 2.5 OR BETTER IN EACH NURS COURSE. A student may either fail one nursing course once or withdraw from one nursing course once throughout the entire nursing program.** Sophomores who fail or withdraw from one nursing course are required to participate in 30 hours of tutoring at the Fitchburg State University Tutoring Center, as well as complete 15 hours of skills in the Nursing Lab during the semester. Failure to comply will result in dismissal from the program. Juniors or seniors who fail or withdraw from one nursing course will be allowed to repeat that course the following semester. Failure to achieve a grade of 2.5 or better when the course is repeated will result in dismissal from the major. Any subsequent grade of less than 2.5 in any other nursing course will result in dismissal from the major.

Students will be required to take nationally normed tests throughout the curriculum and to make a satisfactory score on such tests. These tests may also count for a portion of course grades. In the last semester of the curriculum, students will be required to take a comprehensive exam and to make a satisfactory score on such an exam prior to graduation/taking the licensing exam. The student is responsible for testing fees associated with these exams.

UNDERGRADUATE DAY PROGRAMS

Undergraduate Day Programs

The college has 14 academic departments, each headed by a department chair. Each department has responsibility for one or more majors or degree programs, tracks within the major and minors. In the following section, the requirements for majors and minors are outlined under each discipline. Required and elective courses in each discipline are defined to help students with course selection.

Academic advisors should always be consulted to ensure that courses are taken in the appropriate sequence and are fulfilling all the requirements needed for graduation. Students should make an appointment with the department chairperson for special information about application for admission into a particular major or minor.

Majors/Concentrations **Bold indicates disciplines available as a major.**	Minors	Departments
Human Services	Criminal Justice	Behavioral Science
Criminal Justice	Industrial/Organizational Psychology	
Psychological Science	Psychology	
Developmental Psychology	Sociology	
Industrial/Organizational Psychology	Women's Studies	
Sociology		
Biology	Biology	Biology/Chemistry
Biotechnology	Chemistry	
Exercise Science		
Environmental Biology		
Secondary Education		
Business Administration	Business Administration	Business Administration
Accounting		
International Business and Economics		
Management		
Marketing		
Communications Media	Graphics	Communications Media
Communication Studies	Communications Studies	
Film/Video Production		
Photography		
Professional Communication		
Graphic Design		
Interactive Media		

(Continued from previous page)

Bold indicates disciplines available as a major.

Majors/Concentrations	Minors	Departments
Computer Science	Computer Science	Computer Science
Computer Information Systems		
Economics	African-American Studies	Economics, History
International Business and Economics	American Studies	and Political Science
History	Economics	
History/Secondary Education	History	
Political Science	International Studies	
	Peace Studies	
	Political Science	
	Social Science	
	Women's Studies	
Early Childhood with and without disabilities		Education
Elementary		
Middle School		
Special Education		
Special Education Teacher of Students with Moderate Disabilities/Elementary (preK-8)*		
Special Education Teacher of Students with Moderate Disabilities/Secondary (5-12)		
Special Education Teacher of Students with Severe Disabilities (All Levels)		
English	African-American Studies	English
Literature	American Studies	
Professional Writing	Literature	
Secondary Education	Professional Writing	
Theater	Theater	
	Women's Studies	
Exercise Science		Exercise and Sport Science
Clinical Exercise Physiology		
Fitness Management		
Earth Science	Geography/Earth Science	Geo/Physical Sciences
Earth Science/Secondary and Middle School Education		
Geography		
Interdisciplinary Studies	Art	Humanities
Interdisciplinary Studies (Humanities)	French	
	Italian Studies	
	Music	
	Philosophy	
	Spanish	
Industrial Technology	Construction Technology	Industrial Technology
Architectural Technology	Electronics Engineering Technology	
Construction Technology	Industrial Training	
Electronics Engineering	Manufacturing Technology	
Facilities Management		
Manufacturing Engineering		
Technical Theatre Arts		
Technology Education		
Occupational/Vocational Education		
Honors Program	Leadership	Leadership Academy
Mathematics	Mathematics	Mathematics
	Secondary Education	
Nursing	Nursing	

** Can simultaneously earn a second license in Elementary.*

Majors/Degrees

Biology
BA Biology

BS Biology
- Biology/Biotechnology
- Biology/Environmental Biology
- Biology/Exercise Science
- † Biology Secondary Education Program

Business Administration
BS Business Administration
- Accounting
- Management
- Marketing

Communications Media
BS Communications Media
- Communication Studies
- Graphic Design
- Film/Video Production
- Photography
- Professional Communication
- Interactive Media

Computer Science
BS Computer Science

BS Computer Information Systems

Criminal Justice
BS Criminal Justice

Early Childhood Education
BS Education

† Early Childhood Education Program

Economics
BS Economics
- International Business in Economics

Elementary Education
BS Education

† Elementary Education Program

English
BA/BS English
- Literature
- Professional Writing
- Theater
- † English Secondary Education Program

Exercise and Sport Science
BS Exercise and Sport Science

Geography
BA Geography
- Geography
- Earth Science

BS Geography
- Geography
- Earth Science

History
BA History

BS History
- † History Secondary Education Program

Human Services
BS Human Services

Industrial Technology
BS Industrial Technology
- Architectural Technology
- Construction Technology
- Electronics Engineering
- Facilities Management
- Manufacturing Engineering
- Technical Theatre Arts

Interdisciplinary Studies
BA Interdisciplinary Studies

BS Interdisciplinary Studies

Mathematics
BA Mathematics

BS Mathematics

† Mathematics Secondary Education Program

Nursing
BS Nursing

Occupational/Vocational Education
BS Education

Political Science
BA Political Science

BS Political Science

Psychological Science
BA Psychology

BS Psychology

Sociology
BA Sociology

BS Sociology

Middle School Education
BS Education

† Middle School Education Program

Special Education
BS Education

† Special Education Program
- Teacher of Students with Moderate Disabilities/ Elementary (preK-8)
- Teacher of Students with Severe Disabilities (all levels)

Technology Education
Technology Secondary Education Program

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† A liberal arts and sciences major is required for these Teacher Preparation programs.

African-American Studies

Chairpersons
Paul Weizer
Patrice Gray

Objectives for the African-American Studies Program

The interdisciplinary program in African American Studies provides courses which examine the cultures, history, and literature of African-American peoples. This course work provides students with new perspectives on the significant roles played by these peoples.

Requirements for the Minor in African-American Studies

This interdisciplinary program requires a minimum of 18 credits. Students may use no more than two of their major courses toward the minor.

Required Courses

AAST	1000	*Introduction to African-American Studies*

Select One:

AAST/HIST	2300	*African-American History*
AAST/HIST	2930	*Modern African History*
AAST/HIST	2520	*African American Women's History*

Select One:

AAST/ENGL	2670	*20th Century African American Literature*
AAST/ENGL	2650	*Other Voices*

Electives (select 3)

AAST/HIST	2300	*African-American History*
AAST/HIST	2930	*Modern African History*
AAST/HIST	2520	*African-American Women's History*
AAST/ENGL	2660	*19th Century African-American Literature*
AAST/ENGL	2670	*20th Century African-American Literature*
AAST/SOC	2510	*Peoples and Cultures of Africa*
AAST/MUSC	3800	*History of Jazz*
AAST/PHED	1310	*African Jazz Dance*

Independent Study, Directed Study, or Topics courses that are pertinent to the minor can be selected in consultation with the coordinators of the African-American Studies Minor.

American Studies

Chairpersons	Coordinators
Paul Weizer *Patrice Gray*	*Ben Railton*

Program Objectives

The Studies Program the interdisciplinary program in American Studies provides an opportunity for students to explore the cultural life of the United States throughout its history. In American Studies courses, students apply methods drawn from diverse academic disciplines, including literature, history, music, art history, economics, and political science, geography, folklore, communication, and media studies. A minor in American Studies is offered.

Requirements for the Minor in American Studies

The minor will require a minimum of six courses or 18 credits. Three of the six courses are required:

AMST	1800	*Introduction to American Studies I* **or**
AMST	1900	*Introduction to American Studies II*
ENGL	2000	*American Literature I* **or**
ENGL	2100	*American Literature II* **and**
HIST	1400	*United States History I* **or**
HIST	1500	*United States History II*

The minor also includes three elective courses, two of which must be at the 3000-level or above. Students must select these with their advisor.

Art

Chairperson
Rala Diakite

Professor	Associate Professor	Assistant Professor
Susan Wadsworth	*Petri Flint*	*Sally Moore* *Jessica Robey*

Objectives for the Program in Art

The art program provides undergraduates with a variety of studio and art history courses to increase their aesthetic awareness and skills.

Requirements for the Minor in Art

The minor in art requires a minimum of 18 semester hours, including the following:

Required Studio Course

Select One:

ART	1300	*Intro to Studio Art*
ART	1400	*Drawing*
ART	1450	*Introduction to Painting*
ART	1600	*Design*
ART	1840	*Sculpture I* **or** *any other studio art course*

Required Art History Course

Select one:

ART	1100	*Art Appreciation*
ART	2900	*Nineteenth Century Art*
ART	3300	*History of Architecture*
ART	3700	*Women, Art and Society* **or** *any other art history course*

The remaining **12** semester hours may be taken from approved art electives. At least two courses must at or above the 2000 level.*

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* *MUSC 2000 Commonwealth of the Arts or MUSC 2100 Commonwealth of the Ancient Arts can be used as one of the four electives.*

Asian Studies

Chairperson
Rala Diakite

Objectives for the Program in Asian Studies

The Asian Studies program offers an interdisciplinary minor that exposes students to the arts, culture, history and literature of Asian countries and is designed to serve a twenty-first century constituency shaped by the experience of globalization. The program mainly includes countries from the regions of South Asia, South East Asia and Asia Minor, including Japan. Students learn to appreciate the issues that dominate this increasingly important but little understood region, and gain awareness about the complexity and diversity of Asian societies and cultures. The Minor is based on courses offered through the departments of History, Political Science, Economics, Humanities and English. The program requires a total of 18 credits and culminates a capstone course in the form of a directed study.

Requirements for the Minor in Asian Studies

The minor in Asian Studies requires a minimum of 18 semester hours, including the following:

Required Courses:
Choose one from the following courses with a "world designation":

ECON	2400	*Economic Development*
ENGL	2400	*World Literature I*
ENGL	2500	*World Literature II*
ENGL	3000	*World Drama*
MUSC	1500	*World Music*
PHIL	3610	*World Religions*
POLS	2200	*Contemporary International Relations*
POLS	3800	*Third World Politics*

And capstone course or directed study designed with advisor.

Choose four elective courses from the following:

ART	2100	*Asian Art*
ENGL	3710	*South Asian Literature*
ENGL	3091	*Asian Cinemas*
IDIS	2500	*Culture and Society of India*
HIST	2800	*Far East before 1800*
HIST	2850	*Modern Far East*
HIST	3100	*The Silk Roads in History and Culture*
HIST	3200	*India Since 1500*
IDIS	2500	*Culture and Society of India*
POLS	3700	*Asian Politics*

Biology

Chairperson
Margaret Hoey

Professors	**Associate Professors**	**Assistant Professors**
George Babich	*Christopher Cratsley*	*Ronald Krieser*
Dorothy Boisvert	*Michael Nosek*	*Christopher Picone*
Margaret Hoey		*Thomas Schoenfeld*
Howard Thomas		

Objectives for the Program in Biology

The Biology Department offers an educational program that is sound and challenging. The program has a vibrant, dedicated faculty with a broad range of expertise in the biological sciences. The faculty serve as teacher/mentor/scholar. This provides a positive role model for Biology majors. The department has a rich history of producing successful graduates in teacher training, biotechnology, and environmental science. The department provides a supportive teaching/learning environment giving individual attention to students and research opportunities. Student training includes a strong foundation in bioethics which is fostered within in the curriculum. Students become aware of career potentials by close association with their academic advisors. The Biology Club provides an interface between students and the department which allows for personal and social interactions. The department also offers courses in laboratory science for students in all other majors.

Requirements for the Major in Biology

All students in either the bachelor of science or bachelor of arts programs in Biology (exceptions listed below) are offered a required core sequence of courses. These core biology courses all involve student laboratory work to develop the skills of scientific inquiry. Students are introduced to computer applications for biological research in General Biology I and II, as part of their Computer Literacy requirement. These skills are utilized and expanded upon in their upper level biology courses. Students also develop scientific literacy through reading, writing, and talking about scientific concepts in these courses. In Developmental Biology, the capstone course of the Biology core, students demonstrate their mastery of these skills as part of their Listening and Speaking and Junior/Senior Writing requirements.

BIOL	1800	*General Biology I*
BIOL	1900	*General Biology II*
BIOL	2300	*Ecology*
BIOL	2800	*Genetics*
BIOL	3250	*Cell Biology*
BIOL	3550	*Developmental Biology*

In addition, at least four elective courses at or above the 2000 level are required of biology majors to bring the total number of credits in the major to at least 36 credits. Independent study, guided study, internship or teaching practicum may each count for one of these courses in any given semester.

Finally, bachelor of arts and bachelor of science students are required to take courses in related sciences and two courses in mathematics at or above the level of MATH 1300. Bachelor of arts students are required to have foreign language proficiency at the Intermediate level.

Required Courses in Related Sciences

CHEM	1300	*General Chemistry I*
CHEM	1400	*General Chemistry II*
CHEM	2000	*Organic Chemistry I*
CHEM	2100	*Organic Chemistry II*
PHYS	2300	*General Physics I*
PHYS	2400	*General Physics II*

Exceptions: The requirements are slightly modified for the bachelor of science in Biology/Environmental Science and the bachelor of science in Biology/Exercise Science programs.

BS in Biology/Biotechnology

The bachelor of science in Biology/Biotechnology includes all of the core requirements for the bachelor of science in Biology. In addition, the four Biology electives are replaced by Biochemistry, General Microbiology and Molecular Biology and one Biology elective at or above the 2000 level.

BS in Biology with Initial Teacher Licensure

Students within our Biology major can pursue initial licensure as high school Biology teachers. This program provides students with both a broad introduction to high school teaching and specific instruction in the theory, research and practice of secondary science teaching. Students engage in field-based experiences in the school setting supervised by our faculty through on-site pre-practicum experiences coupled with each teaching course and a formal teaching practicum as the capstone experience. This program is nationally accredited by the National Council for Accreditation of Teacher Education and boasts graduates working in high schools throughout the region.

Students interested in pursuing Initial Teacher Licensure must apply for formal admission to the program. For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate). In addition to the required courses for the major, students in the program must take a core sequence of teacher preparation courses.

Core Requirements

BIOL	2860	*Introduction to Secondary School Teaching**
SPED	3800	*Secondary Programs for Adolescents (14-22) with Special Needs**
ENGL	4700	*Teaching Reading and Writing Across the Content Area**
BIOL	4850	*Biology Teaching Methods***
BIOL	4860/ 4870	*Biology Practicum in a Secondary School (300 hrs.)*

**Students must have an overall GPA of 2.5 to take any of these courses.*

***Students must have an overall GPA of 2.75, 3.0 in the major courses and passing score on the MTEL Communication and Literacy and Subject Area Exam.*

Post Baccalaureate Program in Biology, 8-12

Students who hold a bachelor's degree and wish to become a secondary level (grades 8-12) teacher of Biology, may complete a post baccalaureate program that consists of the equivalent of a degree in biology and 18 credit hours of pedagogical coursework in education.

Students who are interested in the program must meet the following criteria:

- Evidence of a bachelor's degree
- A GPA of 2.8 or better
- Successful completion of the Massachusetts Test for Educator Licensure: Communication and Literacy Skills Sub-test

Once accepted, students will undergo a transcript review by the graduate program chair or undergraduate advisor, as designated by the department and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the major will be determined through a transcript review. Students will complete all requirements of the major and license as identified in the undergraduate program.
- Courses as identified below in the teacher preparation program (pedagogy courses):

When courses are in a student's plan of study, they will complete the plan of study at the undergraduate level, or at the graduate level if the equivalent is offered.

Once the licensure program is completed, students can request admission to the graduate program after completing additional admissions requirements as designated by the department.

Required Education Courses

BIOL	2860	*Introduction to Secondary Teaching*
ENGL	4700	*Teaching Reading and Writing Across the Content Area*
SPED	3800	*Adolescents with Special Needs*
BIOL	4850	*Special Methods in Teaching Biology*
BIOL	4860	*Practicum I (150 Hrs.)*
BIOL	4870	*Practicum II (150 Hrs.)*

Once a student has completed all requirements for professional and content specific courses, they will be eligible for endorsement in their selected field through Fitchburg State University.

BS in Biology/Environmental Biology

The bachelor of science in Biology/Environmental Biology is an appropriate concentration for students interested in environmental careers, including ecology research, environmental protection, or state agencies. This concentration includes of the requirements of the bachelor of science in Biology with the following exceptions:

1. Environmental Science (ENSC 1000) is required. 2. One of the four Biology electives is replaced by an internship of 3-6 credits in an environmental area (ENSC 4950). 3. Two semesters of General Physics can be replaced with any two courses at or above the 2000 level with a GEOG or PHYS designation. For example, this requirement would be fulfilled by any two courses from the following list: Physics I, Physics II, Geology, Atmospheres, Oceanography, Map Use, Remote Sensing, Geographic Information Systems, or Environmental Hydrogeology. Students considering graduate studies should note that Physics is required by some graduate programs. 4. While the MATH requirements are the same as for any Biology major, Applied Statistics (MATH 1700) is encouraged.

BS in Biology/Exercise Science

The Biology bachelor's degree in Exercise Science is different than the Exercise and Sport Science degree offered by the Exercise and sport science department. The bachelor of science in exercise science in biology shares common course requirements with the bachelor of science degree except for the substitution of Anatomy and Physiology I & II for General Biology. Students are prepared for employment in the fitness industry, including the corporate or commercial setting. Many students go on to graduate programs in either Biology or exercise related disciplines such as Physical Therapy. This major provides a strong foundation in the biological sciences which then supports a multifaceted series of courses such as exercise physiology, motor control, and biomechanics offered by the Exercise and Sport Science Department.

BIOL	1800	*General Biology I*
BIOL	1200	*Anatomy and Physiology I*
BIOL	1300	*Anatomy and Physiology II*
BIOL	1650	*Nutrition*
BIOL	2800	*Genetics*
BIOL	3250	*Cell Biology*
BIOL	3450	*Biochemistry*
BIOL	3550	*Developmental Biology*
EXSS	2070	*Exercise Physiology*
EXSS	4025	*Motor Learning and Control of Human Movement*
EXSS	3020	*Biomechanics*
**BIOL*	4950	*Internship* or
EXSS	3450	*Exercise Testing and Programming*

** A 2.5 cumulative GPA is required for the internship.*

Requirements for the Minor in Biology

The minor in Biology enables students to demonstrate a substantial and coordinated subsidiary expertise in biological sciences. The minor in Biology requires a minimum of 18 semester hours of course work as follows:

One year (6 or 8 semester hours) of any of the entry-level Biology sequences:

BIOL	1000	*Life Science I* and
BIOL	1100	*Life Science II* or
BIOL	1200	*Anatomy and Physiology I* and
BIOL	1300	*Anatomy and Physiology II* or
BIOL	1800	*General Biology I* and
BIOL	1900	*General Biology II*
		Ten semester hours of 2000, 3000, 4000-level courses selected after consultation with a minors advisor in the Biology Department.

Business Administration

Chairperson

Joseph McAloon

Professors	Associate Professors	Assistant Professors
James Noonan	*Diane Caggiano*	*Beverly Hollingsworth*
Louis Zivic	*Kwahng Kim*	*Francis Morrison*
	Joseph McAloon	*Audrey Pereira*
	Charles Wellens	*Reneé Scapparone*
		Gary Vostok

Instructor

William Dabb
Richard DesRoches

Objectives for the Program in Business Administration

The Business Administration Department prepares each student to take a responsible position within the world of business equipped with a knowledge of business theories, policies, and procedures.

The curriculum is based in the liberal arts, coupled with professional courses and a variety of practical business experiences including the opportunity for experiential learning through internships, structured to give the participant an opportunity to apply the theory of the classroom to a specific work experience.

Accreditation Standards

Accredited by the International Assembly for Collegiate Business Education (IACBE).

Requirements for the Major in Business Administration

Concentrations/Options

The Business Administration Program at Fitchburg State University includes concentrations in one of four areas of business: accounting, management, marketing and international business and economics.

Core Curriculum

BSAD	2010	*Introduction to Financial Reporting*
BSAD	2020	*Introduction to Managerial Accounting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3400	*Basic Finance*
BSAD	3500	*Business Law I*
BSAD	4890	*Business Policy and Strategy**

Liberal Arts and Sciences Requirements

SPCH	1000	*Speech***
ECON	1100	*Macroeconomics*
ECON	1200	*Microeconomics*
BSAD	1700	*Introduction to Computer Information Systems for Business****
MATH	1800	*Business Statistics*
MATH	2200	*Calculus for Business*

The courses beyond the core curriculum are open only to Business Administration majors. These upper-level courses are not transferable from another college if they are required within a student's concentration.

** Junior/Senior Writing Requirement*

*** Speaking/Listening Requirement*

**** Computer Literacy Requirement*

Specializations for the Major in Business Administration

Accounting Curriculum

BSAD	3010	*Financial Reporting Theory and Practice I*
BSAD	3020	*Financial Reporting Theory and Practice II*
BSAD	3120	*Cost Accounting*
BSAD	4010	*Financial Reporting Theory and Practice III*
BSAD	4110	*International Accounting and Taxation*
BSAD	4120	*Individual Taxation*
BSAD	4140	*Auditing*
BSAD	4500	*Business Law II*
		15 semester hour electives

One Directed Advanced Elective from the following:

BSAD	4100	*Consolidations and Mergers* or
BSAD	4130	*Corporate, Estate, and Gift Taxation* **or**
BSAD	4160	*Not-for-Profit Accounting*

Management Curriculum

BSAD	3210	*Human Resources Management*
BSAD	3220	*Production Management*
BSAD	4200	*Organizational Behavior and Theory*
BSAD	4210	*Social and Political Environment of Business*
BSAD	4230	*Business Fluctuations and Forecasting*
BSAD	4880	*International Business Management*
		21 semester hour electives

Marketing Curriculum

BSAD	3310	*Consumer Behavior*
BSAD	3320	*Market Research*
BSAD	3330	*Advertising*
BSAD	4880	*International Business Management*

In addition, three marketing electives (from list below) are also required:

BSAD	3340	*Small Business Management*
BSAD	3350	*Total Quality Management*
BSAD	4300	*Sales Management*
BSAD	4310	*Retail Marketing*
BSAD	4320	*Industrial Marketing*
BSAD	4330	*International Marketing*
BSAD	4340	*Developing Marketing Strategies*
		18 semester hour electives

Business Administration/International Business and Economics

The International Business and Economics program provides students with an understanding of the rapidly changing global economy. It concentrates on explanations of the complexities of the business discipline in relationship to the theory of international trade and finance and the changing roles of international institutions (such as the World Trade Organization and the International Monetary Fund). The concentration provides the student with knowledge of the intricacies of doing business internationally. Students will study international marketing and the commerce, trade and investments of international business.

LAS Requirements

BSAD	1700	*Introduction to Computer Information Systems for Business*
MATH	1800	*Business Statistics*
MATH	2200	*Calculus for Business*
ECON	1100	*Principles of Macroeconomics*
ECON	1200	*Principles of Microeconomics*
IDIS	1200	*Introduction to International Studies* or
IDIS	1800	*Global Issues*
HIST	1150	*World Civilizations III*
SPCH	1000	*Speech*

Two of the following nine English courses or two courses in the same language.

ENGL	2400	*World Literature I* **or**
ENGL	2500	*World Literature II* **or**
ENGL	3070	*European Literature I* **or**
ENGL	3080	*European Literature II* **or**
ENGL	3100	*World Novel to 1914* **or**
ENGL	3110	*World Novel Since 1914* **or**
ENGL	3700	*African Literature* **or**
ENGL	3710	*South Asian Literature* **or**
ENGL	3720	*Caribbean Literature*
ITAL	2000	*Intermediate Italian I*
ITAL	2100	*Intermediate Italian II* **or**
SPAN	2000	*Intermediate Spanish I*
SPAN	2100	*Intermediate Spanish II* **or**
FREN	2000	*Intermediate French I*
FREN	2100	*Intermediate French II*

Major Requirements in International Business and Economics

BSAD	2010	*Introduction to Financial Reporting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3500	*Business Law I*
BSAD	4330	*International Marketing*
BSAD	4880	*International Business and Management*
ECON	2400	*Money and Banking*
ECON	3000	*History of Economic Thought*
ECON	3550	*International Economics*
ECON	3650	*Intermediate Macroeconomics*
ECON	3600	*International Finance Economics*
ECON	3660	*Intermediate Microeconomics*

Two Additional Electives from Economic Courses above the 2000 Level

ECON	1300	*Consumer Economics*
ECON	2200	*Comparative Economic Systems*
ECON	2450	*Human Resource Economics*
ECON	2500	*Economic Development*
ECON	2550	*Urban Economics*
ECON	2600	*Public Finance*
ECON	3700	*Econometrics*
ECON	3750	*Managerial Economics*
ECON	4900	*Independent Study in Economics*
ECON	4940	*Internship in Economics*
ECON	XXX	*Topics in Economics*
GEOG	3000	*Economic Geography*
BSAD	4230	*Business Fluctuations and Forecasting*

Requirements for the Minor in Business Administration

The minor in Business Administration consists of 18 credits. The following four courses are required:

BSAD	2010	*Introduction to Financial Reporting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3500	*Business Law I*

Two business electives must also be taken. Two of the six required courses may be transferred from another university. Students minoring in Business Administration may take a maximum of two upper-level courses. These courses must be taken at Fitchburg State University and they must be approved by the department chairperson.

Chemistry

Chairperson
Margaret Hoey

Professors
Judith Ciottone
Meledath Govindan
Da-hong Lu

Assistant Professor
Aisling O'Connor

Objectives for the Program in Chemistry

The Chemistry Program provides coursework for majors in Nursing, Biology, Industrial Technology, Clinical Laboratory Sciences, Environmental Science and Earth Science. A minor in Chemistry also is available to all students.

Requirements for the Minor in Chemistry

A Minor in Chemistry consists of:

CHEM	1300	*General Chemistry I*
CHEM	1400	*General Chemistry II*
CHEM	2000	*Organic Chemistry I*
CHEM	2100	*Organic Chemistry II*
CHEM	2400	*General Analytical Chemistry*

One course selected from Analytical Chemistry II, Physical Chemistry I, Physical Chemistry II, Advanced Inorganic Chemistry, Radiation Chemistry, Forensic Chemistry, or Natural Products.

Communications Media

Chairperson
Randy Howe

Professors
George Bohrer
Peter Laytin
Ann Mrvica
Wayne Munson
Helen Obermeyer Simmons
Charles Sides

Associate Professor
Robert Carr
John Chetro-Szivos
Robert Harris
Randy Howe
Jon Krasner
Charles Roberts
Jeffrey Warmouth

Assistant Professors
Mary Baker
Rodney Carveth
Stephen Goldstein
M. Zachary Lee
Viera Lorencova

Objectives for the Program in Communications Media

The Communications Media Program prepares individuals to assume communication positions as freelancers, designers, independent producers, or employees of corporations, institutions, and media organizations.

The program provides a blend of the principles and practices necessary for the effective design, production, and evaluation of media for information presentation by graphic, photographic, film, video, electronic, and print technologies. In combination with the Liberal Arts and Sciences Program, Communications Media fosters the development of skills critical to adapting to an ever changing technological and knowledge-based society.

Requirements for the Major in Communications Media

The Bachelor of Science degree in Communications Media requires 54 semester hours in its major requirements. Course requirements are organized into five phases.

LAS Requirement

SOC	1100	*Introduction to Sociology*

LAS Recommendations

Students should select the course or courses related to their concentration:

COMM 2400	*History of Photography*
COMM 2405	*History of Film I*
COMM 2415	*History of Film II*
COMM 2420	*History of Television*
COMM 2430	*History of Graphic Design*

Phase I Freshman Introductory Requirements

Phase I exposes students to the foundations, concepts, and practices used in the preparation, delivery, evaluation, and research of verbal and visual messages.

Required Courses

COMM 1105	*Introduction to Communication and Media Studies*
COMM 1120	*Message Design*

Phase II Applied Concentration

Phase II enables students to become involved with an in-depth investigation of an area in communications which is most closely aligned with individual talents and interests. Students must select and complete one concentration with the consent of their advisor. A minimum of five required courses must be taken within a concentration.

Note: For some concentration courses, students are expected to pay for supplies that may range in cost from $100 to $300 per course.

Film Production Concentration

Required Course Sequence

COMM 3520	*Intermediate Production* **or**
COMM 3521	*Intermediate Documentary* **or**
COMM 3710	*Intermediate Film Production*
COMM 3506	*Pre-Production*

Choose one Specialized Elective from the following list:

COMM 2320	*Script Writing*
COMM 3510	*Audio Production for Film and Video*
COMM 3530	*Post-Production—Planning for Film and Video*
COMM 3550	*Production Management*
COMM 3560	*Sound Design*
COMM 3580	*Lighting*
COMM 3730	*Directing*
COMM 3740	*Digital Production for Film and Video*
COMM 3750	*Cinematography*
COMM 3765	*Writing for Film and Video*

Final Requirement in the Concentration

COMM 3540	*Advanced Video Production or*
COMM 3720	*Advanced Film Production*

This is in addition to the Communications Media department theory and internship requirements active for all Communications Media students as well as Communications Media major status and classification as matriculated into the Film and Video Concentration.

Video Production Concentration

Required Course Sequence

COMM 3505	*Introduction to Film and Video*
COMM 3520	*Intermediate Video Production* **or**
COMM 3710	*Intermediate Film Production*
COMM 3506	*Pre-Production*

Choose one Specialized Elective from the following list:

COMM 3510	*Audio Production for Film and Video*
COMM 3530	*Post-Production Planning for Film and Video*
COMM 3550	*Production Management*
COMM 3560	*Sound Design*
COMM 3580	*Lighting*
COMM 3730	*Directing*
COMM 3740	*Digital Production for Film and Video*
COMM 3750	*Cinematography*
COMM 3765	*Writing for Film and Video*

Final Requirement in the Concentration

COMM 3540	*Advanced Video Production or*
COMM 3720	*Advanced Film Production*

This is in addition to the Communications Media department theory and internship requirements active for all Communications Media students as well as Communications Media major status and classification as matriculated into the Film and Video Concentration.

Graphic Design Concentration

Required Courses

COMM 3810	*Introduction to Graphic Design*
COMM 3820	*Intermediate Graphic Design*
COMM 3880	*Typography*
COMM 3890	*Computer Graphic Design*
COMM 3950	*Advanced Graphic Design*

Elective Courses

COMM 3309	*Interface Design*
COMM 3830	*Illustration*
COMM 3840	*Graphic Design Portfolio and Practice*
COMM 3850	*Publication Design*
COMM 3900	*Graphic Design Photography*
COMM 3920	*Digital Imaging*
COMM 3940	*Motion Graphic Design*

Photography Concentration

Required Courses

COMM 3600	*Photography I*
COMM 3610	*Photography II*
COMM 3620	*Photography III*
COMM 3630	*Large Format Photography*
COMM 3645	*Digital Photography*

Elective Courses

COMM 3640	*Color Photography*
COMM 3660	*Photography Management*
COMM 3690	*Photography Seminar*

Professional Communication Concentration

Required Courses

COMM 3304	*Interactive Project Design*
COMM 3430	*Writing for Advertising*
COMM 3460	*Public Relations*
COMM 3470	*Documentation Design*
COMM 3860	*Writing for Business and Technology*

Elective Courses

COMM 2800	*Journalism*
COMM 3870	*Feature and Magazine Writing*
COMM 4211	*Writing for the Professional Artist*

Note: It is recommended that students take the history course related to their concentration as part of their Liberal Arts and Sciences program. These courses include History of Film I, History of Film II, History of TV, History of Graphic Design, and History of Photography.

Interactive Media Concentration

Required Courses

COMM 3304	*Interactive Project Design*
COMM 3305	*Interactive Media I*
COMM 3306	*Interactive Media II*
COMM 3307	*Interactive Media III*
COMM 3309	*Interface Design*
COMM 3380	*Game Design*

Elective Courses

COMM 3308	*Interactive Media Seminar*
COMM 3350	*DVD Authoring*

Communications Studies Concentration

This concentration provides for advanced studies of the theoretical constructs necessary for strategic analysis, design, application, research, and evaluation of a variety of media systems. It provides foundational preparation for graduate studies in communications and a number of allied fields.

Required Courses

COMM 4205	*Seminar in Communication Theory*
COMM 4230	*Communication Law*
COMM 4240	*Media Criticism*
COMM 4250	*Research Seminar*

Elective Courses

COMM 4220	*Organizational Communication*
COMM 4280	*Intercultural Communication*

Phase III Advanced Electives

Following or concurrent with Phase II, students, in consultation with their advisor, select one of the following options:

- Four additional courses in the same concentration
- Four courses in other concentrations
- Four courses from a combination of concentrations, including additional theory, conceptual, or methodological courses

Phase IV Upper-Level Theory/Conceptual/ Methodological Requirements

Students in their junior/senior year will take the following:

Requirement

COMM 4200	*Human Communication*

Junior Writing Requirement (Select One)

COMM 2800	*Journalism*
COMM 3430	*Writing for Advertising*
COMM 3460	*Public Relations*
COMM 3470	*Documentation Design*
COMM 3860	*Writing for Business and Technology*
COMM 4000	*Writing for Aesthetics*
COMM 4211	*Writing for the Professional Artist*
COMM 4240	*Media Criticism*

Electives (Select One)

COMM 4210	*Instructional Training Design*
COMM 4220	*Organizational Communication*
COMM 4230	*Communication Law*
COMM 4240	*Media Criticism (unless used for junior writing requirement)*
COMM 4250	*Research Seminar*
COMM 4205	*Seminar in Communication Theory*

Phase V Integrated Studies

This required senior level phase provides an opportunity for students to apply their knowledge and skills in a professional environment.

Required Course

COMM 4880	*Internship*	12 cr.

Enrichment Courses (electives)

COMM 4260	*Advanced Professional Study*	3 cr.
COMM 4901	*Independent Study*	1 cr.
COMM 4902	*Independent Study*	2 cr.
COMM 4903	*Independent Study*	3 cr.
COMM 4906	*Independent Study*	6 cr.
COMM 4940	*Field Study*	3 cr.
COMM 4950	*Field Study*	6 cr.

VISIONS

VISIONS is an annual juried exhibition of the best work by Communications Media students during that year. VISIONS is held in late April of each year.

Communication Studies Minor

The Communication Studies minor is open to students who have an overall GPA of 2.5.

Students may **NOT** take courses in the minor until they have been accepted.

Requirements for Minor

18 credits are required. All students must complete:

COMM 1105	*Introduction to Communication and Media Studies*
COMM 4200	*Human Connection*

And any four of the following:

COMM 1120	*Message Design*
COMM 4000	*Writing in Aesthetics*
COMM 4205	*Seminar in Communication Theory*
COMM 4206	*Media and Society*
COMM 4220	*Organizational Communication*
COMM 4230	*Communication Law*
COMM 4240	*Media Criticism*
COMM 4250	*Research Seminar*
COMM 4280	*Intercultural Communication*
COMM 4281	*Gender and Communication*

Graphics Minor

An interdisciplinary minor in graphics is offered in conjunction with the Computer Science and Industrial Technology Departments. See Graphics in this catalog for an explanation of program requirements.

Computer Information Systems

Chairperson
Frits Lander

Professor	**Associate Professors**
Nadimpalli Mahadev	*Frank Archambeault* *Kevin Austin* *Brady Chen* *Natasha Kourtonina* *Frits Lander* *Stephen Taylor*

Program Objectives

The Computer Information Systems Program offers the opportunity for students to develop knowledge and skills in analysis and design of business information systems, database development, software development, and networking. This program prepares the students for professional careers in the rapidly changing field of computer information systems. Students develop good communication skills and the ability for teamwork and leadership roles in their professional careers.

All CIS majors are encouraged to seek a minor in Business Administration.

Requirements for the major in Computer Information Systems must include:

CSC	1000	*Introduction to Programming*
CSC	1400	*Computer Information Systems*
CSC/ MATH	1900	*Discrete Mathematics*
CSC	1500	*Computer Science I*
CSC	1550	*Computer Science II*
CSC	2400	*Database Systems*
CSC	2560	*Systems Programming*
CSC	2700	*Business Programming*
CSC	3400	*Data Communications and Networking*
CSC	3450	*Local Area Networks*
BSAD	2010	*Introduction to Financial Reporting*
BSAD	2020	*Introduction to Managerial Accounting*
BSAD	3200	*Principles of Management*
BSAD	3400	*Basic Finance*
CSC/ BSAD	3710	*Systems Analysis Methods*
CSC/ +BSAD	4700	*Systems Design & Implementation*
ECON	1100	*Macroeconomics*
ECON	1200	*Microeconomics*
*MATH	1250	*Introduction to Functions*
MATH	1800	*Business Statistics*
MATH	2200	*Calculus for Business*

Three additional CS electives at or above 3000 level

---

* *Pending placement exam results.*

+ *Course used to satisfy Junior/Senior Writing, and Speaking and Listening requirements. Computer Literacy requirement is satisfied by CS core.*

Computer Science

Chairperson
Frits Lander

Professor
Nadimpalli Mahadev

Associate Professors
Frank Archambeault
Kevin Austin
Brady Chen
Natasha Kourtonina
Frits Lander
Stephen Taylor

Objectives for the Program in Computer Science

The Computer Science Program offers the opportunity for students to develop a unique blend of knowledge and skills in the areas of computer software and computer hardware. The program provides sufficient theoretical background for continued learning. It also provides practical skills to prepare the students for professional careers in the rapidly changing field of computer science. Students develop good communication skills and the ability for teamwork and leadership roles in their professional careers.

Requirements for the Major in Computer Science

The Degree of Bachelor of Science in Computer Science must include:

CSC	1500	*Computer Science I*
CSC	1550	*Computer Science II*
CSC	1600	*Introduction to Electronics*
CSC	1650	*Digital Electronics*
CSC	2560	*Systems Programming*
CSC	2600	*Computer Organization*
CSC	3100	*Operating Systems*
CSC	3200	*Programming Languages*
CSC	3600	*Microprocessors*
CSC	3700	*Algorithms and Data Structures*
+CSC	4400	*Software Engineering*
CSC/MATH	1900	*Discrete Mathematics*
*MATH	1300	*Pre-Calculus*
MATH	1800	*Business Statistics*
MATH	2300	*Calculus I*
MATH	2400	*Calculus II*
MATH	2600	*Linear Algebra*

One additional Math at the 3000 level or higher

PHYS	2300	*General Physics I*
PHYS	2400	*General Physics II*

Five CS electives at or above 3000 level.

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* *Pending placement exam results*

+ *Course used to satisfy Junior/Senior Writing, and Speaking and Listening requirements. Computer Literacy requirement is satisfied by CS core.*

Requirements for the Minor in Computer Science

A minor in Computer Science consists of the following courses:

CSC	1500	*Computer Science I*
CSC	1550	*Computer Science II*
CSC	2560	*Systems Programming*
CSC	3200	*Programming Languages*
		two Computer Science electives at or above the 3000 level

Criminal Justice

Chairperson
Randall Grometstein

Coordinator
Randall Grometstein

Professor
Richard Wiebe

Associate Professors
Deon Brock
Randall Grometstein

Assistant Professors
Elizabeth Walsh
David Weiss

Objectives for the Major in Criminal Justice

The Criminal Justice Major provides students with courses which lead to a Bachelor of Science Degree and provides a foundation for employment in the Criminal Justice field and graduate work. The program is PCIPP approved.

Requirements for the Criminal Justice Major

The Criminal Justice Program requires every major to complete 45 credits of CJ requirements and a minimum of 120 credits for the degree. These include core CJ required courses (24 credits), additional CJ required courses (6 credits) and CJ electives (15 credits). Courses are also required in the Liberal Arts and Sciences requirements (12 credits).

Core Requirements (24 credits)

CJ	2000	*Introduction to Criminal Justice*
CJ	2050	*Principles and Practice of Law Enforcement**
CJ	2650	*Correctional Theory and Practice**
CJ	2651	*Ethics in Criminal Justice**
CJ	3140	*Criminal Justice Data Analysis**
CJ	3750	*Colloquium**
CJ/POLS	2270	*Introduction to Legal Process*
SOC	2750	*Criminology*

Additional required CJ courses

CJ	3130	*Criminal Justice Research Methods**
CJ	3242	*Psychology of Crime**

And 15 credits of elective credits, chosen in consultation with their advisor, from the list of courses that follow:

Criminal Justice

CJ	2450	*Women in Criminal Justice**
CJ	2500	*Correctional Law**
CJ	2550	*Criminal Law**
CJ	2600	*Juvenile Justice**
CJ	3000	*Domestic Terrorism and Hate Crime**
CJ	3053	*Victimology**
CJ	3100	*Organized Crime and Youth Gangs**
CJ	3150	*Program Evaluation**
CJ	3200	*White Collar and Corporate Crime**
CJ	3215	*Community Policing**
CJ	3250	*Crime and Delinquency Prevention**
CJ	3300	*Community Based Corrections**
CJ	3333	*Crime in the Media**
CJ/POLS	3510	*International Terrorism*
CJ	4970	*Internship in C J (6 credits in CJ electives)* **or**
CJ	4980	*Internship in CJ (6 credits in CJ electives/3 credits free electives)* **or**
CJ	4990	*Internship in CJ (6 credits in CJ electives/6 credits free electives)*

Human Services

HMSV	2400	*Crisis Intervention*
HMSV	3500	*Abuse and Neglect Within the Family*

Political Science

POLS	2550	*Sex, Race, and the Constitution*
POLS	2700	*Criminal Procedure: The Rights of the Accused*
POLS	3500	*Constitutional Law*

Psychology

PSY	2350	*Abnormal Psychology*

Sociology

SOC	2760	*Juvenile Delinquency*
SOC	3500	*Law and Society*

Selected topics courses in these disciplines may be allowable with the permission of your advisor. Criminal Justice electives from other colleges may be accepted as electives if approved by the Criminal Justice Advisory Committee.

**Introduction to Criminal Justice is a pre-requisite for this course.*

LAS Requirements for the Criminal Justice Major

As part of their Liberal Arts and Sciences requirements, all students in the Criminal Justice Major must complete 12 required credits:

MATH	1700	*Applied Statistics*
POLS	1000	*United States Government* **or**
POLS	1100	*Introduction to Political Science*
PSY	1100	*General Psychology*
SOC	1100	*Introduction to Sociology*

Other Liberal Arts and Sciences courses are required as part of the degree. It is the student's responsibility to fulfill accurately and completely all Liberal Arts and Sciences and program requirements. Each student is assigned an academic advisor to assist with this process.

Requirements for the Minor in Criminal Justice

A minor in Criminal Justice is offered by the Department of Behavioral Sciences. Students will complete the Criminal Justice Minor as they fulfill the responsibilities of an academic major. There are nine semester hours of required courses and nine semester hours of electives. Students are reminded that they may use no more than two of their major courses toward the minor.

Required Courses (nine semester hours)

CJ	2000	*Introduction to Criminal Justice* **and**
SOC	2750	*Criminology* **and**
CJ/ POLS	2270	*Introduction to the Legal Process* **or**
SOC	3500	*Law and Society*

Note: If both CJ/POLS 2270 and SOC 3500 are taken, one counts as Required and the other as Elective.

Electives (nine semester hours)

CJ	2050	*Principals and Practices of Law Enforcement*
CJ/ POLS	2270	*Introduction to the Legal Process*
CJ	2450	*Women in Criminal Justice**
CJ	2500	*Correctional Law**
CJ	2550	*Criminal Law**
CJ	2600	*Juvenile Justice**
CJ	2650	*Correctional Theory and Practice*
CJ	2551	*Ethics in Criminal Justice*
CJ	3000	*Domestic Terrorism and Hate Crime**
CJ	3053	*Victimology**
CJ	3100	*Organized Crime and Youth Gangs**
CJ	3150	*Program Evaluation**
CJ	3200	*White Collar and Corporate Crime**
CJ	3215	*Community Policing**
CJ	3242	*Psychology of Crime*
CJ	3250	*Crime and Delinquency Prevention**
CJ	3300	*Community Based Corrections**
CJ	3333	*Crime in the Media**
CJ/ POLS	3510	*International Terrorism*
HMSV	2400	*Crisis Intervention*
HMSV	3500	*Child Abuse and Neglect Within the Family*
POLS	2550	*Sex, Race, and the Constitution*
POLS	2700	*Criminal Procedure: The Rights of the Accused*
POLS	3500	*Constitutional Law*
PSY	2350	*Abnormal Psychology*
SOC	2760	*Juvenile Delinquency*
SOC	3500	*Law and Society*

Course descriptions can be found listed within the following disciplines: Criminal Justice, Human Services, Political Science, Psychology, and Sociology. Please refer to the course description section for more information.

** Introduction to Criminal Justice is a pre-requisite for this course.*

Economics

Chairperson
Paul Weizer
Professors
Pirudas Lwamugira
Michael Turk
Assistant Professor
Jill Dupree

Objectives for the Program in Economics

The Economics Program offers Liberal Arts and Sciences courses which focus on understanding the principles of economics for private enterprise market economies, especially the United States economy, as well as the workings of the global economy. The program offers both a major and a minor to students who are interested in a career in economics or business.

Requirements for the Major in Economics

The degree of bachelor of science in Economics requires 36 credits:

ECON	1100	*Principles of Macroeconomics*
ECON	1200	*Principles of Microeconomics*
ECON	2400	*Money and Banking*
ECON	3000	*History of Economic Thought**
ECON	3650	*Intermediate Macroeconomics*
ECON	3660	*Intermediate Microeconomics*
MATH	2200	*Calculus for Business*
MATH	1800	*Business Statistics*
SPCH	1000	*Speech*

Four courses selected from the following:

ECON	1300	*Consumer Economics*
ECON	2200	*Comparative Economic Systems*
ECON	2450	*Human Resource Economics*
ECON	2500	*Economic Development*
ECON	2550	*Urban Economics*
ECON	2600	*Public Finance*
ECON	3550	*International Economics*

ECON	3700	*Econometrics*
ECON	3750	*Managerial Economics*
ECON	4900	*Independent Study in Economics*
ECON	4940	*Internship in Economics*
ECON	5000	*Topics in Economics*
GEOG	3000	*Economic Geography*
BSAD	4230	*Business Fluctuations and Forecasting*

**ECON 3000 satisfies the Junior/Senior Writing Requirement.*

International Business and Economics

The International Business and Economics Program provides students with an understanding of the rapidly changing global economy. It concentrates on explanations of the complexities of the business discipline in relationship to the theory of international trade and finance and the changing roles of international institutions (such as the World Trade Organization and the International Monetary Fund). The concentration provides the student with knowledge of the intricacies of doing business internationally. Students will study international marketing and the commerce, trade and investments of international business.

LAS Requirements

BSAD	1700	*Introduction to Computer Information Systems for Business*
MATH	1800	*Business Statistics*
MATH	2200	*Calculus for Business*
ECON	1100	*Principles of Macroeconomics*
ECON	1200	*Principles of Microeconomics*
IDIS	1200	*Introduction to International Studies* or
IDIS	1800	*Global Issues*
HIST	1150	*World Civilizations III*
SPCH	1000	*Speech*

Two of the following nine English courses or two courses in the same language:

ENGL	2400	*World Literature I* **or**
ENGL	2500	*World Literature II* **or**
ENGL	3070	*European Literature I* **or**
ENGL	3080	*European Literature II* **or**
ENGL	3100	*World Novel to 1914* **or**
ENGL	3110	*World Novel Since 1914* **or**
ENGL	3700	*African Literature* **or**
ENGL	3710	*South Asian Literature* **or**
ENGL	3720	*Caribbean Literature*
ITAL	2000	*Intermediate Italian I*
ITAL	2100	*Intermediate Italian II* **or**
SPAN	2000	*Intermediate Spanish I*
SPAN	2100	*Intermediate Spanish II* **or**
FREN	2000	*Intermediate French I*
FREN	2100	*Intermediate French II*

Major Requirements

BSAD	2010	*Introduction to Financial Reporting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3500	*Business Law I*
BSAD	4330	*International Marketing*
BSAD	4880	*International Business and Management*
ECON	2400	*Money and Banking*
ECON	3000	*History of Economic Thought*
ECON	3550	*International Economics*
ECON	3650	*Intermediate Macroeconomics*
ECON	3600	*International Finance Economics*
ECON	3660	*Intermediate Microeconomics*

Two additional electives from economic courses above the 2000 level:

ECON	1300	*Consumer Economics*
ECON	2200	*Comparative Economic Systems*
ECON	2450	*Human Resource Economics*
ECON	2500	*Economic Development*
ECON	2550	*Urban Economics*
ECON	2600	*Public Finance*
ECON	3700	*Econometrics*
ECON	3750	*Managerial Economics*
ECON	4900	*Independent Study in Economics*
ECON	4940	*Internship in Economics*
ECON	XXXX	*Topics in Economics*
GEOG	3000	*Economic Geography*
BSAD	4230	*Business Fluctuations and Forecasting*

Requirements for the Minor in Economics

A minor in Economics requires:

ECON	1100	*Principles of Macroeconomics*
ECON	1200	*Principles of Microeconomics*
		Four courses selected from courses listed for the Economics major.

**Computer Literacy Requirement*

Education

See Teacher Preparation Programs

English

Chairperson

Patrice Gray

Professors	**Associate Professors**	**Assistant Professors**
Janice Alberghene	*Angela Nastassee-Carder*	*Frank Mabee*
Judith Budz	*Michael Hoberman*	*Joseph Moser*
Chola Chisunka	*Aruna Krishnamurthy*	*Benjamin Railton*
Lisa Gim	*Margarite Landry*	*Kisha Tracy*
Patrice Gray	*Doris Schmidt*	*Ian Williams*
Nancy Kelly	*Patricia Smith*	
Irene Martyniuk		
Richard McElvain		
Kelly Morgan		
Thomas Murray		

Description of the Program

Through a variety of specialized programs, English majors can obtain a bachelor of arts English-Literature, bachelor of arts English-Professional Writing, bachelor of arts English-Initial Licensure, bachelor of arts English-Theater, and bachelor of science English-Literature, bachelor of science English-Professional Writing, bachelor of science English-Initial Licensure, and bachelor of science English-Theater.

Objectives for the Program in English

The English program offers students a) knowledge of the broad field of literature in English, b) in-depth knowledge of its diverse aspects, c) the reading, writing, and research tools for exploring the field and its boundaries, and d) ample opportunity for hands-on experience in related fields.

Requirements for the Major in English

Approaches to English Studies (ENGL 2999) provides an introduction to the discipline. All English majors must satisfactorily complete the course by the end of their sophomore year. Transfer students must take ENGL 2999 during their first year at the university, unless exempted by the department chair, based on evaluation of transfer course work. English majors in all tracks must also successfully complete a senior portfolio. See individual tracks for specific requirements in addition to the above.

Internship

The English Department, through its internship program, offers an opportunity for seniors and second-semester juniors to explore a profession for one full semester of work and credit. The internship enables students to apply theoretical knowledge and laboratory developed skills in an actual professional setting. Students in the program have enjoyed an unusually high level of job-entry success. To be eligible for an internship, students must have a minimum GPA of 2.5

English majors can experience a wide range of professional activity in fields such as radio, television, journalism, personnel work, library functions (school, public, or technical), public relations, law, government, human services, theater, and technical productions. New internship positions are identified each semester. Department approval is required.

Core Courses for All English Tracks

All English Majors are required to take 21 credits from the following courses:

ENGL 2999 *Approaches to English Studies* 3 cr.

Three Literature Surveys

One American Survey of Literature 3 cr.
ENGL 2000 *American Literature I: Age of Exploration to the Civil War* **or**
ENGL 2100 *American Literature II: Civil War to the Present*

One British Survey of Literature 3 cr.
ENGL 2200 *British Literature I: Beowulf to Milton* **or**
ENGL 2210 *British Literature II: Pepys to Shelley* **or**
ENGL 2220 *British Literature III: Bronte to Rushdie*

Students may take a third Survey or substitute an equivalent period course in British or American literature as indicated below: 3 cr.
ENGL 2000 *British Literature I: Age of Exploration to the Civil War* **or**
ENGL 4200 *Romantic Movement in U.S. Literature.*
ENGL 2100 *British Literature II: Civil War to the Present*
or select from:
ENGL 2650 *Ethnic American Literature*
ENGL 3010 *American Drama*
ENGL 3220 *American Novel to 1950*
ENGL 2200 *British Literature I: Beowulf to Milton*
or select from:
ENGL 3030 *The Middle Ages*
ENGL 3120 *The Golden Age of English Renaissance*
ENGL 4010 *Chaucer and His World*
ENGL 2210 *British Literature II: Pepys to Shelley*
or select from:
ENGL 4040 *Major English Writers of the 17th Century*
ENGL 4050 *The Novel in the 18th Century*
ENGL 4070 *Tradition and Revolution in British Literature: 1750–1800*
ENGL 4080 *British Romanticism*
ENGL 2220 *British Literature III: Bronte to Rushdie*
or select from:
ENGL 3040 *British Literature Since World War II*
ENGL 4090 *The 19th-Century English Novel*
ENGL 4100 *Victorian Literature*
ENGL 4115 *British Modernism*

One Upper Level Literature: 4000 Level 3 cr.

One Upper Level Writing Intensive 3 cr.
(select from)
ENGL 3480 *Writing for the Web*
ENGL 3500 *Creative Writing*
ENGL 3510 *Fiction Writing I*
ENGL 3520 *Writing Poetry*
ENGL 3530 *Fiction Writing II*
ENGL 3840 *On-Line Magazine*
ENGL 3860 *Feature & Magazine Writing*
ENGL 3870 *Writing for Business & Technology*
ENGL 3890 *Creative Nonfiction Writing*
SPCH 3000 *Speechwriting*

Capstone 3 cr.
ENGL 4999 *English Capstone*

Specializations for the Major in English

BA in English—Literature

42 Credit Hours: 21 Core and 21 Literature Track

- A course in speech or performance fulfills the speaking and listening requirement, where applicable.
- Second-year language proficiency is required.
- Students complete a portfolio in the capstone course during senior year.
- This program also provides preparation for Initial Licensure for Teaching Secondary School English.

Students in this track will fulfill core requirements as well as one course from the following categories mentioned below.

Culture Studies (select from) 3 cr.
ENGL 2300 *Literature and Disability*
ENGL 2340 *Global Issues in Film*
ENGL 2600 *Bible as Literature*
ENGL 2620 *Classical Mythology*
ENGL 2650 *Ethnic American Literature*
ENGL 2660 *19th Century African American Literature*
ENGL 2670 *20th Century African American Literature*
ENGL 2890 *Storytelling and the Oral Tradition*
ENGL 3000 *World Drama*
ENGL 3091 *Asian Cinemas: Eastern Visions in a Post-Colonial World*
ENGL 3100 *World Novel to 1914*
ENGL 3110 *World Novel Since 1914*
ENGL 3300 *Women and Literature*
ENGL 3620 *Classical Tradition in Western Literature*
ENGL 3880 *Folklore in America*
ENGL 4060 *Early Modern Women Writers*
ENGL 4600 *Literary Cult of the Virgin Queen*

Genre Study (select from) 3 cr.
ENGL 2620 *Classical Mythology*
ENGL 2700 *Short Story*
ENGL 2720 *Reading Poetry*
ENGL 2750 *Detective Fiction*
ENGL 2730 *History of Theater I*
ENGL 2740 *History of Theater II*
ENGL 2890 *Storytelling and the Oral Tradition*
ENGL 2900 *Children's Literature*

ENGL	2910	*Literature for Young Adults*
ENGL	2951	*Grammar Dilemma*
ENGL	3000	*World Drama*
ENGL	3010	*American Drama*
ENGL	3020	*Modern Drama*
ENGL	3060	*Modern Poetry*
ENGL	3090	*Questioning War in Film & Literature*
ENGL	3100	*World Novel to 1914*
ENGL	3110	*World Novel Since 1914*
ENGL	3730	*Illustrated Book & Rise of Graphic Novel*
ENGL	4050	*Novel in the 18th Century*
ENGL	4090	*19th Century English Novel*
ENGL	4230	*American Novel Since WWII*
ENGL	4500	*Literary Theory*

Continental/Post-Colonial Literature (select from) 3 cr.

ENGL	3050	*20th Century Irish Literature*
ENGL	3070	*European Literature I*
ENGL	3080	*European Literature II*
ENGL	3092	*Transatlantic Literature*
ENGL	3700	*African Literature*
ENGL	3710	*South Asian Literature*
ENGL	3720	*Caribbean Literature*

Literary Movement (select from) 3 cr.

ENGL	3030	*Middle Ages*
ENGL	3040	*British Literature Since World War II*
ENGL	3120	*Golden Age of English Renaissance Literature*
ENGL	3210	*Major American Writers 20th Century*
ENGL	3620	*Classical Tradition in Western Literature*
ENGL	4040	*Major English Writers of the 17th Century*
ENGL	4070	*Tradition & Revolution in 18th Century Literature: 1750-1830*
ENGL	4080	*British Romanticism*
ENGL	4100	*Victorian Literature*
ENGL	4115	*British Modernism*
ENGL	4200	*Romantic Movement in American Literature*

Special Authors 3 cr.

ENGL	4000	*Check current registrar's catalog for course offering*

Shakespeare (select from) 3 cr.

ENGL	4020	*Shakespeare's Drama: Text and Performance*
ENGL	4030	*Interpreting Shakespeare's Work*

Junior/Senior Seminar 3 cr.

ENGL	4400	*Check current registrar's catalog for course offering*

BS in English—Literature

This program is available for students who choose not to fulfill the requirements for foreign language proficiency at the second-year level. All other requirements are the same as for the Bachelor of Arts in English-Literature.

BA in English—Professional Writing

42 Credit Hours: 21 Core and 21 Professional Writing Track

- A course in speech or performance fulfills the speaking and listening requirement, where applicable
- Second-year language proficiency is required
- Students complete a portfolio in the capstone course during senior year

Students in this track will fulfill core requirements as well as one course from the following categories.

ENGL	2800	*Journalism*	3 cr.
ENGL	3890	*Creative Non-Fiction Writing*	3 cr.

Media Digital Elective (select from) 3 cr.

ENGL	3480	*Writing for the Web*
ENGL	3490	*College Newspaper Production*
ENGL	3840	*On-Line Magazine Writing*

Professional Writing Electives (select from) **12 cr.**

ENGL	2320	*Scriptwriting*
ENGL	2810	*Editing & Publishing*
ENGL	3500	*Creative Writing*
ENGL	3510	*Fiction Writing I*
ENGL	3520	*Writing Poetry*
ENGL	3530	*Fiction Writing II*
ENGL	3860	*Writing for Business & Technology*
ENGL	3870	*Feature & Magazine Writing*

Internship strongly recommended. Three credits of an internship can be counted toward the required 12 credits of Professional Writing Electives. Available Internship courses are:

ENGL	4940	*Internship*	**3 cr.**
ENGL	4950	*Internship*	**6 cr.**
ENGL	4960	*Internship*	**9 cr.**
ENGL	4970	*Internship*	**12 cr.**

BS in English—Professional Writing

This program is available for students who choose not to fulfill the requirements for foreign language proficiency at the second-year level. All other requirements are the same as for the Bachelor of Arts in English-Professional Writing.

BA in English—Theater

42 Credit Hours: 21 Core and 21 Theater Track

- Second-year language proficiency is required.
- Students complete a portfolio in the capstone course during senior year.

Students in this track will fulfill core requirements as well as the following courses.

SPCH	1700	*Voice & Articulation*	**3 cr.**
THEA	1700	*Stage Movement*	**3 cr.**
THEA	2700	*Acting I*	**3 cr.**
THEA	2730	*History of Theater I*	**3 cr.**
THEA	2740	*History of Theater II*	**3 cr.**
ENGL	4020	*Shakespeare's Drama: Text & Performance* **or**	
ENGL	4030	*Interpreting Shakespeare's Work*	**3 cr.**

One Theater Elective (select from) **3 cr.**

THEA	2800	*Acting II*
THEA	3010	*Acting for the Camera*
THEA	3400	*Advanced Stage Movement*
THEA	3500	*Voice II*
THEA	4000	*Directing the Play*
THEA	4500	*Auditioning*

BS in English—Theater

This program is available for students who choose not to fulfill the requirements for foreign language proficiency at the second-year level. All other requirements are the same as for the Bachelor of Arts in English-Theater.

BA in English—Secondary Education with Initial Teacher Licensure

76 Credit Hours: 21 Core, 21 Literature Track, 34 Initial Licensure Track

- A course in speech or performance fulfills the speaking and listening requirement, where applicable.
- Second-year language proficiency is required.
- Students complete a portfolio in the capstone course during senior year.

Students within our English major can pursue initial licensure as a middle or high school English teacher. This program provides students with both a broad introduction to middle and high school teaching and specific instruction in the theory, research, and practice of secondary English teaching. Throughout the program, students engage in field-based experiences in the school setting supervised by our faculty, culminating in a formal teaching practicum. This program is nationally accredited by NCTE/NCATE and boasts graduates working in high schools throughout the region.

Students interested in pursuing Initial Teacher Licensure must apply for formal admission to the program. GPA requirements of 2.5 must be met in order to register for initial pedagogy classes. Further GPA and gate requirements must be met prior to registering for ENGL 4850 and the practicum. For information about undergraduate requirements in teacher preparation, see the section titled: "Teacher Preparation Programs (Undergraduate)".

Students in this track will fulfill core requirements and literature track requirements, as well as the following courses:

ENGL	2860	*Introduction to Secondary School Teaching**	**3 cr.**
ENGL	2870	*The Structure and Nature of Language*	**3 cr.**
ENGL	2910	*Literature for Young Adults*	**3 cr.**
SPED	3800	*Secondary Programs for Adolescents with Special Needs**	**3 cr.**
ENGL	4700	*Teaching Reading and Writing Across the Content Area**	**3 cr.**
ENGL	4850	*Special Methods in English***	**3 cr.**
ENGL	4865	*Practicum Seminar*	**3 cr.**
ENGL	4860	*English Practicum in a Secondary School I (150 hours)*	**6 cr.**
ENGL	4870	*English Practicum in a Secondary School II (150 hours)*	**6 cr.**

**Students must have an overall GPA of 2.5 to take any of the courses.*

***Students must have an overall GPA of 2.75, 3.0 in the major courses and passing score on the MTEL Communication and Literacy and Subject Area Exam.*

Post Baccalaureate Program in English, 8-12

Students who hold a bachelor's degree and wish to become a secondary level (grades 8-12) teacher of English, may complete a post baccalaureate program that consists of the equivalent of a degree in English and 18 credit hours of pedagogical coursework in education.

Students who are interested in the program must meet the following criteria:

- Evidence of a bachelor's degree
- A GPA of 2.8 or better
- Successful completion of the Massachusetts Test for Educator Licensure: Communication and Literacy Skills Sub-test

Once accepted, students will undergo a transcript review by the Graduate Program Chair or undergraduate advisor, as designated by the department and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the major will be determined through a transcript review. Students will complete all requirements of the major and license as identified in the undergraduate program.
- Courses as identified below in the teacher preparation program (pedagogy courses).

When courses are in a student's plan of study, they will complete the plan of study at the undergraduate level, or at the graduate level if the equivalent is offered.

ENGL	2860	*Introduction to Secondary Teaching*
SPED	3800	*Adolescents with Special Needs*
ENGL	4700	*Teaching Reading and Writing Across the Content Area*
ENGL	4850	*Special Methods in English*
ENGL	4865	*Practicum Seminar* **or**
ENGL	8090	*Practicum Seminar*
ENGL	4860	*Practicum I* **and**
ENGL	4870	*Practicum II* **or**
ENGL	9400	*Practicum*

Once the licensure program is completed, students can request admission to the graduate program after completing additional admissions requirements as designated by the department.

Once a student has completed all requirements for professional and content specific courses, they will be eligible for endorsement in their selected field through Fitchburg State University.

Double Majors

Students with double majors in English and Early Childhood, Elementary, Middle School, or Special Education are working toward a BS degree and are exempt from foreign language proficiency requirement.

Minor in English

Literature 18 credits

Required

ENGL	2999	*Approaches to English Studies*	3 cr.

ONE American Literature **3 cr.**

ENGL	2000	*American Literature I: Exploration to the Civil War or*
ENGL	4200	*Romantic Movement in U.S. Literature or*
ENGL	2100	*American Literature II: Civil War to the Present*

or select from:

ENGL 2650 Ethnic American Literature

ENGL 3010 American Drama

ENGL 3220 American Novel to 1950

ONE British Literature **3 cr.**

ENGL 2200 British Literature I: Beowulf to Milton

or select from:

ENGL	3030	*The Middle Ages*
ENGL	3120	*The Golden Age of English Renaissance*
ENGL	4010	*Chaucer and His World* **or**
ENGL	2210	*British Literature II: Pepys to Shelley*

or select from:

ENGL	4040	*Major English Writers of the 17th Century*
ENGL	4050	*The Novel in the 18th Century*
ENGL	4070	*Tradition and Revolution in British Literature: 1750–1800*
ENGL	4080	*British Romanticism* **or**
ENGL	2220	*British Literature III: Bronte to Rushdie*

or select from:

ENGL	3040	*British Literature since World War II*
ENGL	4090	*The 19th Century English Novel*
ENGL	4100	*Victorian Literature*
ENGL	4115	*British Modernism*

One literature elective with Global Diversity (GDA) **or** Global Diversity Non-Western (GDAN) designation	3 cr.
Two literature electives, 3000 or 4000 level	6 cr.

Professional Writing 18 credits

Required

ENGL	3890	*Creative Non-Fiction Writing*	3 cr.

Two literature courses in two different areas select from: 6 cr.

ENGL	2000	*American Literature I: Exploration to the Civil War* **or**
ENGL	2100	*American Literature II: Civil War to the Present*
ENGL	2200	*British Literature I: Beowulf to Milton* **or**
ENGL	2210	*British Literature II: Pepys to Shelley* **or**
ENGL	2220	*British Literature III: Bronte to Rushdie*
ENGL	2400	*World Literature I* **or**
ENGL	2500	*World Literature II*

Three electives (select from)*: 9 cr.

ENGL	2320	*Script Writing*
ENGL	2800	*Journalism*
ENGL	2810	*Editing and Publishing*
ENGL	3490	*College Newspaper Production*
ENGL	3500	*Creative Writing*
ENGL	3510	*Fiction Writing*
ENGL	3530	*Fiction Writing II*
ENGL	3520	*Writing Poetry*
ENGL	3840	*On-line Magazine Writing*
ENGL	3860	*Writing for Business and Technology*
ENGL	3870	*Feature and Magazine Writing*
SPCH	3000	*Speech Writing*

**One three-credit advanced writing course must be at the 3000-level.*

Theater

Required

THEA	1700	*Stage Movement*	3 cr.
THEA	2700	*Acting I*	3 cr.
THEA	2730	*History of Theater*	3 cr.
ENGL	3020	*Modern Drama*	3 cr.

*Two electives (select from) 6 cr.

ENGL	3000	*World Drama*
ENGL	3010	*American Drama*
ENGL	4020	*Shakespeare's Drama: Text and Performances*
ENGL	4030	*Interpreting Shakespeare's Works*
SPCH	1700	*Voice and Articulation*
THEA	2740	*History of Theater II*
THEA	3400	*Advanced Stage Movement*

**One of these courses must be at the 3000 or 4000 level.*

Exercise and Sport Science

Chairperson	Professor
Jeff Godin	*David Antaya*

Assistant Professors

Timothy Hilliard
Thomas Pellinger
Dawn Roberts
Danielle Wigmore

Objectives for the Exercise and Sport Science Program

- To prepare relevant professional education supported by a rigorous scientific base to students who choose Exercise and Sport Science careers, whether in the clinical or the fitness setting
- To provide leadership opportunities through apprenticeships, specified internships, and presentations and publications
- To provide career alternatives to students in other majors by offering courses related to their chosen fields of endeavor
- To support the university's liberal arts requirement in the area of health and fitness
- To provide opportunity for students to learn lifetime leisure skills

Description of the Major in Exercise and Sport Science

The Exercise and Sport Science major is designed with two career tracks: clinical exercise physiology and fitness management. The major is both multidisciplinary and interdisciplinary. It is multidisciplinary in that it includes the integration of anatomy, physiology, physics, psychology, and learning theory to describe and explain responses and adaptations to exercise and training, and to apply that knowledge to enhance physical potential for health, for sport, and in rehabilitation. It is interdisciplinary in that it draws from biology and business administration to provide a foundation in these disciplines to support exercise science applications as well as to enhance career preparedness.

There is a common core of Exercise Science courses to ensure a solid foundation in the various disciplines that comprise this multidisciplinary field of study, and to ensure the ability to apply knowledge in a variety of practical experiences. There is an opportunity also to develop breadth and depth in the field of Exercise and Sport Science as each track has specific requirements, as well as free electives.

Exercise and Sport Science Major Requirements

Prerequisites: The major requires prerequisites in Anatomy and Physiology I and II, and Elements of Biochemistry.
In addition, General Biology I and II are required for the Clinical Exercise Physiology track. All students are required to complete the following common core courses:

EXSS	1011	*Introduction to Exercise and Sport Science*
EXSS	2050	*Functional Anatomy*
EXSS	2070	*Exercise Physiology*
EXSS	2072	*Exercise Physiology II*
EXSS	2300	*Nutrition in Exercise and Sport*
EXSS	2500	*Human Motor Development*

EXSS	3020	*Biomechanics*
EXSS	3120	*Scientific Foundations of Strength Training and Conditioning*
EXSS	3450	*Exercise Testing and Programming*
EXSS	4025	*Motor Learning and Control of Human Movement*
EXSS	4040	*Fitness Management*
EXSS	4200	*Senior Seminar in Leadership and Professional Ethics*
EXSS	4950	*Internship*

Clinical Exercise Physiology Track Requirements

EXSS	3600	*Exercise Response and Adaptations in Special Populations*
EXSS	4045	*Cardiovascular Physiology and Electrophysiology*

Fitness Management Track Requirements

EXSS	2400	*Health Promotion*

Liberal Arts and Sciences Requirements

Some of the prerequisites and courses in the major fulfill requirements in the Liberal Arts and Sciences. Additional requirements are:

CHEM	1200	*Elements of Biochemistry*
PSY	1100	*General Psychology*

In addition to the required courses in Exercise and Sport Science, students in the Fitness Management Track are required to complete a series of courses in Business Administration: Principles of Management, Fundamentals of Marketing, Introduction to Managerial Accounting, Microeconomics, Introduction to Financial Reporting, Business Law I, and CIS for Business.

Description of the Interdisciplinary Concentrations

The Exercise and Sport Science department offers a concentration in the field of Exercise Science to students in the Biology department.

Biology/Exercise Science

Course Requirements

EXSS	2070	*Exercise Physiology I*
EXSS	3020	*Biomechanics*
EXSS4950/BIOL	4950	*Internship* **or**
EXSS	3450	*Exercise Testing and Programming*
EXSS	4025	*Motor Learning and Control of Human Movement*

Description of the Health and Fitness requirement in Liberal Arts and Sciences

As part of the Science, Math, and Technology cluster, students must complete three* credit hours in a course or courses that fulfill the health/fitness specification.

**Exercise and Sport Science students meet this requirement by taking all the required courses for the major. Should a student leave the major, he/she must fulfill this requirement.*

Exercise and Sport Science Courses as Electives

Students in any major may take most of the departmental courses for elective credit as long as prerequisites are met. Some students like to participate in a structured activity which is provided in the fitness and recreation courses.

French

Chairperson
Rala Diakite
Associate Professor
Rala Diakite
Keyvan Karbasioun

Objectives for the Program in French

The French Program offers students the opportunity to begin the study of the French language and culture or to continue study at an intermediate or advanced level.

Requirements for the Minor in French

The minor in French requires a minimum of 15 semester hours including the following:

Required Courses

FREN	2000	*Intermediate French I*
FREN	2100	*Intermediate French II*

Electives

Choose at least three of the following:

FREN	3000	*French Civilization*
FREN	3300	*French Literature*
FREN	3500	*French Conversation and Composition*
FREN	4903	*Independent Study*

The minor in French is currently suspended. Students having an interest in the study of French should contact the chair of the Humanities Department.

Geo/Physical Sciences

Chairperson
Bruce Duncan

Professor	**Associate Professor**	**Assistant Professors**
Jiang Yu	*Lawrence R. Guth*	*Bruce Duncan* *Elizabeth Gordon* *Jane Zhang*

Objectives for the Program in Geo/Physical Sciences

The Geo/Physical Sciences department encompasses the disciplines of Earth Science, Geography, and Physics. A major track of study may be chosen in Earth Systems Science or Geography. In both fields, successful students pursue courses of instruction and are supported in undertaking internship experiences which prepare them for entry into the job market or for acceptance to graduate school. Both fields also offer a minor. In addition, all three disciplines which make up the Geo/Physical Sciences offer courses which satisfy various requirements of the Liberal Arts and Sciences Program, as well as those of majors in other departments.

Requirements for the Major in Geography/Earth Systems Science

The degrees of Bachelor of Science and Bachelor of Arts in Geography or Earth Science each require a minimum of 36 semester hours of coursework.

Geography Majors

Core Requirements

GEOG	1000	*Earth Systems Science*
GEOG	1100	*Principles of Human Geography*
GEOG	2800	*Map Use and Interpretation*
GEOG	3500	*GIS*

And an additional eight GEOG courses chosen in consultation with your academic advisor.

Earth Systems Science Majors

Core Requirements

GEOG	1000	*Introduction to Earth Systems Science*
GEOG	2100	*Geology*
GEOG	2200	*Meteorology*
GEOG	2500	*Oceanography*
GEOG	2800	*Map Use and Interpretation*
GEOG	3500	*Geographic Information Systems*

An additional six courses would be required for the major, with selection of those courses dependent upon the student's concentration, chosen in consultation with a student's advisor.

Professional Track

Six courses as chosen from the following:

GEOG	2300	*Climatology*
GEOG	2400	*Computer Applications in Geography/Earth Science*
GEOG	3250	*Historical Geology*
GEOG	3270	*Common Rocks and Minerals*
GEOG	4100	*Planetary Atmospheres*
GEOG	4200	*Geomorphology*
GEOG	4220	*Structural Geology*
GEOG	4500	*Remote Sensing of the Environment*
GEOG	4600	*Environmental Hydrogeology*
GEOG	4800	*Computer Cartography*
GEOG	4900	*Independent Study in Geography*
GEOG	4940, 4950, 4960	*Internship in Geography*
PHYS	2000	*Astronomy*

Required Cognate Courses

(to be taken as part of Liberal Arts and Sciences distribution and free electives):

BIOL	2300	*Ecology*	
CHEM	1300	*General Chemistry I*	
CHEM	1400	*General Chemistry II*	
PHYS	2300	*General Physics I* **and**	
PHYS	2400	*General Physics II*	
		Mathematics (Math 1300 or above)	*6 cr*

Recommended cognate courses for students interested in soil remediation:

Organic Chemistry I and II.

**Those students interested in graduate school should give strong consideration to summer field camp.*

German (inactive)

Chairperson
Rala Diakite`

Objectives for the Program in German

The German program offers students the opportunity to begin the study of German language and culture. Intermediate and advanced work is available through independent study.

The minor in German is currently suspended. Students having an interest in the study of German should contact the chair of the Humanities Department.

Requirements for the Minor in German

The minor in German requires a minimum of 15 semester hours, including the following:

Required Courses

GER	2000	*Intermediate German I*
GER	2100	*Intermediate German II*

Electives

Choose at least three of the following:

GER	2800	*Modern German Literature in Translation*
GER	2900	*Modern German Culture: The Road to Hitler*
GER	3500	*German Conversation and Composition*
GER	4903	*Independent Study*

Graphics

Requirements for the Minor in Graphics

The Interdisciplinary Graphics minor develops an appreciation for all three areas of study while concentrating in one of the areas. Students gain a theoretical background in Computer Science, a design/applications background in Communications Media, and a production background in Industrial Technology.

Required Courses

CSC	1000	*Introduction to Programming* or
CSC	1500	*Computer Science I*
COMM	3810	*Graphic Design I*
ITEC	1500	*Graphic Arts Processes* or
COMM	3910	*Graphic Arts Production*
CSC/COMM/ITEC		*Interdisciplinary Graphics Seminar*

A concentration (two courses) in one of the following areas:

Concentration in Computer Science

CSC	1550	*Computer Science II*
CSC	2000	*Computer Graphics*

Concentration in Communications/Media

COMM	3820	*Graphic Design II*
COMM	3890	*Computer Graphic Design*

Concentration in Industrial Technology

ITEC	1510	*Typography I*
ITEC	2410	*Computer Aided Drafting (CAD)*
ITEC	2500	*Offset Lithography*

Note: Students must select a concentration in a department outside their major field of study.

History

Chairperson
Paul Weizer

Professors	Associate Professors	Assistant Professors
Benjamin Lieberman	*Sean Goodlett*	*Laura Baker*
John Paul	*Rene Reeves*	*Christine Dee*
Susan Williams	*Teresa Thomas*	*Katherine Jewel*
		Daniel Sarefield

Objectives for the Program in History

The History program offers a variety of courses to all students providing a strong foundation in World and United States history.

A major and minor in history, as well as provisional certification for teaching history are provided.

Requirements for the Major in History

The Bachelor of Science and Bachelor of Arts in History require 39 hours of course work. BA and BS candidates in History must have a minor in another discipline. BA and BS candidates for History with Initial Teacher Licensure are not required to have a minor in another discipline.

Required Courses

Choose two of the following:

HIST	1000	*World Civilizations I*
HIST	1100	*World Civilizations II*
HIST	1150	*World Civilizations III*

And the following four courses:

HIST	1400	*U.S. History I*
HIST	1500	*U.S. History II* **or**
AMST	1800	*Introduction to American Studies*
HIST	2000	*Historical Method**
HIST	4500	*Senior Seminar***

- One upper-level elective from each of the following areas: European History, U.S. History, Non-Western (Asia, Africa, or Latin America)
- Nine semester hours of History electives
- The bachelor of arts also requires foreign language proficiency at the intermediate level

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*** Junior/Senior Writing Requirement*
** Computer Literacy and Speaking/Listening Requirement*

Bachelor of Science in History with Initial Teacher Licensure

Students within our History major can pursue initial licensure as high school History teachers. This program provides students with both a broad introduction to high school teaching and specific instruction in the theory, research and practice of secondary History teaching. Students engage in field-based experiences in the school setting supervised by our faculty through on-site pre-practicum experiences coupled with each teaching course and a formal teaching practicum as the capstone experience. This program is nationally accredited by The National Council for Accreditation of Teacher Education and boasts graduates working in high schools throughout the region.

Students interested in pursuing Initial Teacher Licensure must apply for formal admission to the program.

For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate).

Core Courses for Initial Teacher Licensure in History

HIST	2860	*Introduction to Teaching Secondary School****
ENGL	4700	*Teaching Reading and Writing Across the Content Area****
SPED	3800	*Secondary Program for Adolescent with Special Needs****
HIST	4850	*Special Methods of Teaching History*****
HIST	4860	*History Practicum I**
HIST	4870	*History Practicum II**

NCSS Standards

ECON	1050	*Introduction to Economics for Non-Majors*
ECON	1100	*Macroeconomics*
GEOG	1000	*Introduction to Geography*
POLS	1000	*US Government*
POLS	2500	*Political Systems of the Modern World***
PSY	1100	*General Psychology*

** Students are responsible for their own transportation to and from prepracticum as well as practicum sites.*

***POLS 2500 requires IDIS 1200 (Introduction to International Studies) or IDIS 1800 (Global Issues) as a prerequisite.*

****Students must have an overall GPA of 2.5 to take any of these courses.*

*****Students must have an overall GPA of 2.75, 3.0 in the major courses and passing score on the MTEL Communication and Literacy and Subject Area Exam.*

Post Baccalaureate Program in History, 8-12

Students who hold a bachelor's degree and wish to become a secondary level (grades 8-12) teacher of History, may complete a post baccalaureate program that consists of the equivalent of a degree in History and 18 credit hours of pedagogical coursework in education.

Students who are interested in the program must meet the following criteria:

- Evidence of a bachelor's degree
- A GPA of 3.0 or better
- Successful completion of the Massachusetts Test for Educator Licensure: Communication and Literacy Skills Sub-test

Having met the above criteria, students enrolled in the post-baccalaureate program will be eligible to apply for graduate assistantships. Students enrolled in the program will be counted toward the compensation load of the graduate program chair or GCE advisor. Supervision of a practicum and pre-practicum students in this program will count as part of a professor's full-time day load in accordance with the provisions of the day contract, unless the faculty member chooses compensation from GCE.

Once accepted, students will undergo a transcript review by the graduate program chair or undergraduate advisor, as designated by the department and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the major will be determined through a transcript review. Students will complete all requirements of the major and license as identified in the undergraduate program.

- Courses as identified below in the teacher preparation program (pedagogy courses):

When courses are in a student's plan of study, they will complete the plan of study at the undergraduate level, or at the graduate level if the equivalent is offered.

Once the licensure program is completed, students can request admission to the graduate program after completing additional admissions requirements as designated by the department.

Required Education Courses

HIST	2860	*Introduction to Secondary Teaching*
ENGL	4700	*Teaching Writing in Middle and Secondary Schools*
SPED	3800	*Adolescents with Special Needs*
HIST	4850	*Special Methods in Teaching History*
HIST	4860	*Practicum I (150 Hrs.)*
HIST	4870	*Practicum II (150 Hrs.)*

Once a student has completed all requirements for professional and content specific courses, they will be eligible for endorsement in their selected field through Fitchburg State University.

Requirements for the Minor in History

The minor in History consists of 18 semester hours with at least three courses at the 2000-level or above.

Human Services

Chairperson
Randall Grometstein

Professors	**Associate Professor**
John M. Hancock	*Christine Shane*
Lynne Kellner	
Robert J. Wellman	

Objectives for the Human Services Program

A major in Human Services leads to a bachelor of science degree. Administered by the Behavioral Sciences Department, this program allows students to develop the knowledge and skills necessary for entering a variety of human service professions.

Description of the Major in Human Services

The Human Services program is competency based. Through their course work, students gain a theoretical and conceptual base, and develop generic helping skills. Students further develop and demonstrate their knowledge and skills within several community settings through course-related practice and an intensive capstone internship experience. These professionally supervised field experiences integrate academic study with practical hands-on, real-world application, and constitute a special characteristic of the Fitchburg State University program. Additionally, they give students a realistic basis for choosing careers while strengthening their ability to compete in the job market. Students are also encouraged to gain additional experiences through volunteer activities.

The Human Services program produces generalists to work with diverse clients in many settings, and prepares students for graduate study. Course work may be designed for students to pursue interests in human services administration, aging and gerontology, criminal justice and/or juvenile justice, family and children's services, mental health and mental retardation, and other areas.

Students should meet with their Human Services advisors to learn about the recommended course work and career possibilities associated with their interests.

See the section on Departmental Policies for information about the Human Services program's policies on admission, retention and dismissal, internship eligibility, and eligibility for graduation.

Requirements for the Major in Human Services

A. Liberal Arts and Sciences Courses

Human Services majors are required to take the following courses, which also meet LA&S requirements:

Written and Oral Communication

ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
SPCH	1000	*Introduction to Speech Communication,* **or**
SPCH	1600	*Public Speaking,* **and**

Human Services majors are also required to demonstrate computer literacy, defined as skill in using spreadsheets (e.g., MS Excel) and databases (e.g. MS Access). This may be accomplished by taking the following two 1-credit courses:

CSC 1004	*Introduction to Spreadsheets,* **and**
CAS 1005	*Introduction to Databases,* **or**

by taking another suitable computer course with advisor approval.

Government Knowledge (Constitutional) Requirement
May be satisfied by taking one of the following, or, with the consent of the Human Services advisor, additional Political Science courses focused on the Constitution and the structure of government:

POLS	1000	*US Government*
POLS	1500	*State and Urban Government*
POLS	2270	*Introduction to the Legal Process*
POLS	2550	*Sex, Race & the Constitution*
POLS	2600	*The First Amendment*
POLS	3500	*Constitutional Law*

Basic Informational Courses in the Behavioral Sciences:

PSY	2200	*Human Growth & Development*
PSY	2350	*Abnormal Psychology*
SOC	1100	*Introduction to Sociology*

B. The Human Services Core

HMSV	1100	*Introduction to Human Services*
HMSV	2500	*Interviewing Techniques*
HMSV	2050	*Research Methods in Human Service Practice*
HMSV	2900	*Group Work*
HMSV	3000	*Managing the Non-Profit Agency*
HMSV	3700	*Professional Issues in Human Services*
HMSV	3600	*Assessment and Intervention*
HMSV	3800	*Case Management*
HMSV	4870	*Internship in Human Services (6 credits)* ** **and**
HMSV	4880	*Internship in Human Services (6 credits)* **or**
HMSV	4890	*Internship in Human Services (12 credits)*

*** Two options exist for completing an internship in Human Services:*
(1) a block placement involving 30 hours per week plus a two-hour seminar for one semester (fall or spring) (HMSV 4890—12 credits);
(2) 15 hours weekly plus a two-hour seminar, beginning in the fall and continuing until the end of the spring semester (HMSV 4870 & HMSV 4880—6 credits each).

Admission to the Human Services program does not guarantee entry into internship. Eligibility for internship is assessed by the Human Services Review Committee according to the criteria specified in Departmental Policies. Completion of all eligibility requirements at least one semester before undertaking Internship and timely completion of the application process for eligibility are essential.

C. Human Services and Behavioral Sciences Electives

All Human Services majors must complete a minimum of six credits in Human Services electives and an additional six credits from any program in Behavioral Sciences (i.e., Criminal Justice, Human Services, Psychology, Sociology). The 6 credits in Human Services must include one course (3 credits) from among the following:

HMSV	2400	*Crisis Intervention*
HMSV	2950	*Addictive Behaviors*
HMSV	3500	*Abuse and Neglect in the Family*

Policy Regarding Liability Insurance

Liability insurance is required of all students taking Human Services courses which involve a practicum experience. Upon enrolling in such courses, including Internship in Human Services, students are automatically covered under a blanket policy purchased by the university.

Industrial Technology

Chairperson
James Alicata

Professors	Associate Professors	Assistant Professors
Sanjay Kaul	*James Alicata*	*Keith Chenot*
	Cap Corduan	*Faize Jamil*
		Hala Mokbel
		Matthew McGee
		Jack Ou
		Wayne Whitfield

Objectives for the Program in Industrial Technology

The Industrial Technology Department is unique at Fitchburg State University in that it offers two major degree programs and seven concentrations, including:

- Bachelor of science in Education, with a major in Technology Education (120 semester hours)
- Bachelor of science in Industrial Technology (120 semester hours), with concentrations in Architectural Technology, Construction Technology, Electronics Engineering Technology, Energy Management Technology, Manufacturing Engineering Technology, and Technical Theatre.

Liberal Arts and Sciences Requirements

For students in the bachelor of science in Technology Education and the bachelor of science in Industrial Technology, all concentrations:

ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
ITEC	1700	*Evolution of Industrial Technology*
MATH	1300	*Pre-Calculus*
EXSS	1000	*Health and Fitness*
PHYS	2300	*Physics I*
PHYS	2400	*Physics II*

Requirements for the Major in Technology Education (Grades 5-12) (120 Semester hours)

The Technology Education Program prepares students for a teaching career. Successful completion of the 72 credit major enables the graduate to meet the initial licensure requirements of the Commonwealth of Massachusetts. Upon certification, the graduate is eligible to teach in the public schools (grades 5-12) in the common core cluster areas of:

- Communication
- Construction
- Engineering Design
- Manufacturing
- Power Energy and Transportation

These required courses are designed to provide the individual with minimum technical competencies necessary to teach technology education at the public school level. Basic fundamental processes and safety techniques are presented. Additional technical electives enhance expertise in the Technology/Engineering field. Lastly, the professional sequence provides the students with a combination of theoretical and practical experiences in educational pedagogy.

Requirements for Initial Teacher Licensure

For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate).

Students denied admission to the practicum can appeal to the appropriate department chair.

Phase I

ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
EXSS	1000	*Health & Fitness*
ITEC	1700	*Evolution of Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
MATH	1300	*Pre-Calculus*
PSY	1100	*General Psychology* **or**
PSY	2200	*Human Growth and Development*
Initial Licensure Common Technical Core		**36 S. H.)**
ITEC	1710	*Technical Analysis*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2010	*Introduction to Technology Education*
Manufacturing Cluster		
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*
Communications Cluster		
ITEC	1400	*Technical Drawing*
ITEC	2410	*CAD*
ITEC	4000	*Communications in Technology Education*
Construction Cluster		
ITEC	1320	*Construction Systems I*
ITEC	2310	*Construction Systems II*
Power, Energy, and Transportation Cluster		
ITEC	1000	*Electronics Systems and Concepts*
ITEC	1100	*Electronics I*
ITEC	1600	*Energy Systems I*

Initial MTEL Communication & Literacy Skills Tests along with Phase I should be complete before starting Phase II.

Phase II

ITEC	2730	*Automated Manufacturing & Robotics I*
PHIL	2000	*Philosophy of Education or*
PHIL	2600	*Philosophy of Human Nature*
PHYS	2400	*Physics II*
SPCH	1000	*Introduction to Speech Professional Sequence*
ITEC	3800	*Methods in Teaching Technology Education*
ITEC	3810	*Curriculum Development in Technology Education*

Advanced Technical Elective

Choose One – Level 2000 or higher, such as:

ITEC 3110 Digital Electronics
ITEC 3340 Construction Systems III
ITEC 3410 Drafting Commercial Structures
ITEC 3730 Automated Manufacturing II

An additional 30 semester hours of Industrial Technology and LA&S electives are required to complete the program.

Initial MTEL Technology Content Test along with Phase II must be complete before starting Phase III.

Phase III

ITEC	4862	*Practicum I in Technology Education*
ITEC	4864	*Practicum II in Technology Education*

Requirements for the Major in Industrial Technology

The concentrations offered in the Industrial Technology program were developed with the intention of providing a pool of highly skilled technologists who can sustain the needs of industry within the Commonwealth to function in a project management capacity, including:

The concentrations include:

- Architectural Technology
- Construction Technology
- Electronics Engineering Technology
- Energy Management Technology
- Manufacturing Engineering Technology
- Technical Theatre Arts

Architectural Technology Concentration 120 S. H.

The Architectural Technology concentration is a pre-professional program that provides a foundation of architectural and technology undergraduate studies. It is based on a strong exposure to the many facets of architectural design that include residential, commercial, urban, and environmental issues. Equal emphasis is placed on technological components such as drawing, computer aided drafting (CAD), 3-D building information modeling (BIM), site planning, construction and materials technology, energy and sustainability, mechanical and electrical systems, and architectural professional practice.

The program is structured to prepare students with a focused knowledge base and, with the introduction of design, a combination of both linear and creative thinking skills. Graduates are prepared to enter the design/building industry or proceed to graduate programs in architecture or other related design and construction programs. Job opportunities include working in architectural offices and many design and building industry related positions.

Additional Liberal Arts Requirements

ART	1650	*3-D Design*
ART	3300	*History of Architecture*
ART	3500	*History of Modern Architecture*
MATH	2100	*Technical Calculus*

Required courses 64 S.H.

ITEC	1000	*Electric Systems and Circuits*
ITEC	1310	*Materials Testing*
ITEC	1320	*Construction Systems I*
ITEC	1450	*Architectural Graphics*
ITEC	1710	*Technical Analysis*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2310	*Construction Systems II*
ITEC	2400	*Architectural Drawing*
ITEC	2410	*CAD*
ITEC	2450	*Theory of Architecture*
ITEC	2630	*Power and Lighting*
ITEC	3220	*Product Modeling and Rendering*
ITEC	3300	*Estimating and Bidding*
ITEC	3310	*Mechanical and Plumbing Systems*
ITEC	3340	*Construction Systems III*
ITEC	3410	*Drafting Commercial Structures*
ITEC	3430	*Architectural Design I*
ITEC	3460	*Architectural Design II*
ITEC	3600	*Energy Conservation Principals*
ITEC	3930	*Strength of Materials*
ITEC	4350	*Site Planning*
ITEC	4470	*Architectural Professional Practice*

An additional three semester hours of Industrial Technology or declared minor electives are required to complete the concentration.

Construction Technology Concentration 120 S. H.

The Construction Technology concentration provides students with information essential for managerial personnel in the construction industry. Students are exposed to a planned sequence of courses preparing them to function in a project management capacity, including the coordination of workers, materials, subcontractors, and local, state, and federal regulatory agencies.

Required Courses 54 S.H.

ITEC	1000	*Electric Systems and Circuits*
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*
ITEC	1320	*Construction Systems I*
ITEC	1450	*Architectural Graphics*
ITEC	1710	*Technical Analysis*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2310	*Construction Systems II*
ITEC	2400	*Architectural Drawing*
ITEC	2740	*OSHA*
ITEC	3300	*Estimating and Bidding*
ITEC	3310	*Mechanical and Plumbing Systems*
ITEC	3320	*Construction Supervision*
ITEC	3340	*Construction Systems III*
ITEC	3410	*Drafting Commercial Structures*
ITEC	3930	*Strength of Materials*
ITEC	4310	*Seminar in Construction*

An additional 18 semester hours of Industrial Technology or declared minor electives are required to complete the program.

Electronics Engineering Technology Concentration 120 S. H.

The Electronics Engineering concentration prepares students for positions in the challenging field of electronics by developing the theoretical and practical skills required for this discipline. The skills students need are acquired through a planned sequence of courses involving classroom work in conjunction with hands-on experience utilizing the most modern testing and measuring equipment.

Required Courses **51 S.H.**

ITEC	1000	*Electric Systems and Circuits*
ITEC	1100	*Electronics I*
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1400	*Technical Drawing*
ITEC	1600	*Energy Systems I*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2100	*Electronics II*
ITEC	2730	*Automated Manufacturing and Robotics*
ITEC	3100	*Electronics III*
ITEC	3110	*Digital Electronics*
ITEC	3120	*Control Theory*
ITEC	3910	*Engineering Experimentation*
ITEC	3930	*Strength of Materials*
ITEC	4100	*Industrial Electronics*
ITEC	4110	*Electronic Communication Systems*
ITEC	4120	*Microprocessor-Based Control*

An additional 21 semester hours of Industrial Technology or declared minor electives are required to complete the concentration.

Energy Management Technology 120 S. H.

The Energy Management Technology concentration provides students with a general base of HVAC, building utilities and energy. The concentration is aimed to find rewarding and challenging careers in this fast growing, heterogeneous and enormously required concentration. Students learn up-to-date methods and techniques that ensure high quality and are required in different industries as well as utilities. The concentration is the perfect complement of our Architecture and Construction program, thereby providing a more tightly focused program. The concentration integrates formal classroom instruction with applied laboratory work, field practice and experience for a career in their discipline. The following technical courses (54 S.H.) are required in the concentration:

ITEC	1000	*Electric Systems and Circuits*
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*
ITEC	1310	*Materials Testing*
ITEC	1600	*Energy Systems I*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2600	*Energy Systems II*
ITEC	2630	*Power and Lighting Systems*
ITEC	2740	*O.S.H.A.*
ITEC	3310	*Mechanical Plumbing Systems*
ITEC	3600	*Energy Conservation Principles*
ITEC	3650	*Co-Generation and Waste Recovery System*
ITEC	3930	*Strength of Materials*
ITEC	3910	*Engineering Experimentation*
ITEC	4750	*Seminar in Energy Management Technology*
ITEC	4600	*Performance Contracting for Energy Systems*
ITEC	4700	*Project Management*

An additional 18 semester hours of Industrial Technology or declared minor electives are required to complete the program.

Manufacturing Engineering Technology Concentration 120 S. H.

The concentration is designed to develop both technical and analytical competencies required of entry-level positions within manufacturing engineering support. Students are trained to become resourceful, technically competent people who can interface between engineering and other personnel within the manufacturing environment.

The competencies are acquired through a sequence of courses involving laboratory experiments and additional course work within the math/science curriculum. This combination provides the student with the practical knowledge of manufacturing processes, the ability to apply these processes, and the ability to plan, coordinate, and implement aspects of production projects.

Required Courses **54 S.H.**

ITEC	1000	*Electric Systems and Circuits*
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*
ITEC	1310	*Materials Testing*
ITEC	1400	*Technical Drawing*
ITEC	1710	*Technical Analysis*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2410	*Computer Aided Drafting*
ITEC	2710	*Statics*
ITEC	2730	*Automated Manufacturing I*
ITEC	2740	*O.S.H.A.*
ITEC	3700	*Fluid Power Technology*
ITEC	3710	*Quality Control*
ITEC	3730	*Automated Manufacturing II*
ITEC	3900	*Production Planning and Control*
ITEC	3910	*Engineering Experimentation*
ITEC	3930	*Strength of Materials*

An additional nine semester hours of Industrial Technology or declared minor electives are required to complete the program. Options in this area include courses in plastics technology, business management or a workstudy experience in industry.

Technical Theatre Track 120 S.H.

The Technical Theatre track is designed to develop a general base of technical, analytical, managerial, and creative competencies aimed toward entry positions in fields of theatrical production. Students are trained to become resourceful, imaginative, and technically competent people who can integrate engineering and artistic techniques with production situations. Students will acquire these competencies through lectures, laboratories, and actual stage and film productions. These learning activities, accompanied by those of other course selections, provide for a general knowledge of theatre, and the ability to apply these skills to theatrical situations.

Electives and internships provide flexibility through which individuals can pursue areas of special interest.

Additional Liberal Arts Requirements

ART	3300	*History of Architecture* **and**
ART	3500	*History of Modern Architecture* **and**
THEA	2730	*History of Theatre I* **and**
THEA	2740	*History of Theatre II* **or**
THEA	2700	*Acting I* **or**
MUSC	3450	*Appreciating the American Musical* **or**
MUSC	2000	*Commonwealth of the Arts* **or**
ENGL	2300	*Literature and Disability*

Required Courses **57 S.H.**

ITEC	1000	*Electric Systems and Circuits*
ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*
ITEC	1400	*Technical Drawing* **or**
ITEC	1450	*Architectural Graphics*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
ITEC	2410	*Computer Aided Drafting*
ITEC	4900	*Independent Study*
TETA	2100	*Theatrical Design Skills*
TETA	2300	*Fundamentals of Stage Lighting Design*
TETA	2400	*Scene Design*
TETA	2500	*Costume Design*
TETA	2740	*OSHA*
TETA	3300	*Advanced Stage Lighting Design*
TETA	3400	*Advanced Scene Design*
TETA	3600	*Stage Make Up*
TETA	4000	*Production Implication*
TETA	4100	*Stage Management*
TETA	4200	*Portfolio Presentation*
ITEC	4900/	*Independent Study*
TETA	4950	*Theatre Internship*

An additional 15 semester hours of approved electives.

For course descriptions please refer to Technical Theatre in course section.

The Minor in Industrial Technology 18 S.H.

The minor in Industrial Technology offers a choice of four concentrations:

Manufacturing Technology

ITEC	1310	*Materials Testing*
ITEC	2410	*CAD*
ITEC	2730	*Automated Manufacturing I*
ITEC	3730	*Automated Manufacturing II*
		Two approved electives

Construction Technology

ITEC	1320	*Construction Systems I*
ITEC	2400	*Architectural Drawing*
ITEC	3300	*Estimating and Bidding*
ITEC	3320	*Construction Supervision*
		Two approved electives

Electronics Engineering Technology

ITEC	1100	*Electronics I**
ITEC	2100	*Electronics II**
ITEC	3100	*Electronics III**
		Three approved electives

Industrial Training

ITEC	1720	*Computers in Industrial Technology*
ITEC	3800	*Methods of Teaching Technology Education*
ITEC	3810	*Curriculum Development in Technology Education*
		Three approved electives

Prerequisites: Application and departmental approval; prerequisites may be waived based upon an individual's experience and background.

Industrial/Organizational Psychology

Chairperson
Randall Grometstein

Objectives for the Program in Industrial/Organizational Psychology

The program in Industrial/Organizational Psychology will provide students with the skills required for successful employment in the fields of management, supervision, and human resources. The minor in Industrial/Organizational Psychology will be especially useful for business majors who want to pursue careers in human resources or staff management.

Requirements for the Minor in Industrial/Organizational Psychology

The minor in Industrial/Organizational Psychology will require a total of 19 semester hours and will include the following courses:

Required Courses

PSY	1100	*General Psychology* **or**
PSY	2200	*Human Growth and Development*
PSY	2110	*Research Methods* **or**
PSY	2000	*Research Design and Analysis I*
PSY	2370	*Interpersonal Effectiveness*
PSY	2610	*Organizational Psychology* **or**
PSY	4810	*Practicum in Industrial/Organizational*
	4820	*Psychology (1 semester hour)*

Electives

Choose two courses:

PSY	2450	*Psychological Testing*
PSY	2500	*Social Psychology*
PSY	2655	*Organizational Leadership*
PSY	2660	*Psychology of Human Resources*

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* *Students with equivalent course may substitute technical elective.*

Interdisciplinary Studies

Coordinator
Jane Fiske

Objectives for the Program in Interdisciplinary Studies

The bachelor of science and bachelor of arts in Interdisciplinary Studies degrees provide for individually designed, interdisciplinary majors, which allow students to work with faculty advisors to develop a course of study that responds to individual educational and professional goals. Additional objectives are:

- To enable students to explore multidisciplinary areas and to integrate them in a coherent and meaningful way through the creation of a senior capsone project
- To provide the opportunity for majors that combine the broadly-based Liberal Arts and Sciences courses with professional courses that are individually chosen to create a minor and two areas of concentration
- To provide the opportunity, for a part-time, individually paced education, which allows students to build their academic confidence and integrate their studies more easily into their lives

Description of the Major in Interdisciplinary Studies

There are many possible combinations of course work available through this major, limited only by the breadth of courses offered through the day and evening divisions of the university. When creating a plan of study, a student must have a rationale for a thematic approach to their program.

Criteria for Admissions

There is a formal application procedure for students who choose to major in Interdisciplinary Studies. The purpose of the application is to:

- Set forth the student's academic and professional goals and demonstrate why they are best achieved through the Interdisciplinary Studies program
- Require students to outline their proposed program
- Stipulate any required independent exercise or internship

Requirements for the Major in Interdisciplinary Studies

The Interdisciplinary Studies degree is normally awarded as a bachelor of science. A bachelor of arts is awarded if the student includes foreign language study through the second year of college-level work and concentrates their field of studies in the Liberal Arts and Sciences fields. Other requirements include:

- A rationale and a thematic organizing principle for each program
- A minimum of 36 semester hours of coursework for the major with a college-approved minor within one of the three fields
- A minimum of nine semester hours in each of the other two fields/clusters
- A common core of three Liberal Arts and Sciences interdisciplinary courses:

IDIS	*1800*	*Global Issues*
MUSC	*2000*	*Commonwealth of the Arts* **or**
MUSC	*2100*	*Commonwealth of the Ancient Arts*
PHIL	*1100*	*Logic* **or**
PHIL	*2600*	*Philosophy of Human Nature* **or**
PHIL	*3340*	*Contemporary Philosophy* **or**
PHIL	*4430*	*Marxism*

- A senior-year Capstone course intended to help students to integrate the various fields of study. This may take the form of an independent study or an internship (3–15 semester hours)
- A minimum 30 semester hours of course work completed after the program of study is approved and filed with the registrar
- Students must be admitted to the major prior to their senior year

Students' programs must meet the approval of their Interdisciplinary Studies advisor.

Interdisciplinary Studies Major for Early Childhood, Elementary

Students in Early Childhood, Elementary, and Special Education are required to select Interdisciplinary Studies as their Liberal Arts and Sciences major.

Required

IDIS	*1800*	*Global Issues*
IDIS	*4000*	*IDIS Capstone Seminar: Education*
MUSC	*2000*	*Commonwealth of the Arts* **or**
MUSC	*2100*	*Ancient Arts*
PHIL	*1100*	*Logic* **or**
PHIL	*2600*	*Philosophy of Human Nature*

Minor and Concentrations

Students are required to have one minor and two concentrations from four curriculum areas (mathematics, science, English, or history) approved deemed appropriate by the advisor minor. This plan shows the English minor.

English (Minor) **18 cr.**

ENGL	*2000*	*American Literature I: Exploration to Civil War* **or**
ENGL	*2001*	*American Literature II: Civil War to Present*
ENGL	*2200*	*British Literature I: Beowulf to Milton* **or**
ENGL	*2210*	*British Literature II: Pepys to Shelly* **or**
ENGL	*2220*	*British Literature III: Bronte to Rushdie*
ENGL	*2400*	*World Literature I* **or**
ENGL	*2500*	*World Literature II* **or** Literature with "C" designation
ENGL	*2900*	*Children's Literature* or elective
ENGL	*3000+*	*Literature elective* *Two Literature electives at 3000 or above*

History/Social Science **2 cr.**

HIST	*1000*	*World Civilization I* **or**
HIST	*1100*	*World Civilization II*
HIST	*1400*	*US History I* **or**
HIST	*1500*	*US History II*
ECON	*1250*	*Introduction to Economics for Non-majors* **or**
POLS	*1000*	*US Government*

Math **9 cr.**

MATH	*1250*	*Functions*
MATH	*1400*	*Math Across the Curriculum*
MATH	*1700*	*Applied Statistics*
MATH	*2000*	*Informal Geometry*
PHIL	*1100*	*Logic*

Science 9-10 cr.

GEOG	1000	*Intro to Geography*

Choose 2 of the following:

BIOL	1000	*Life Science I* **or**
BIOL	1100	*Life Science II*
BIOL	1200	*Anatomy and Physiology I*
GEOG	1300	*Earth, Sea, and Air*
PHYS	1100	*Physical Science I* **or**
PHYS	1200	*Physical Science II*

Interdisciplinary Studies Major for Special Education

Students in Special Education are required to select Interdisciplinary Studies as their Liberal Arts and Sciences major.

Required

IDIS	1800	*Global Issues*
IDIS	4000	*IDIS Capstone Seminar: Education*
MUSC	2000	*Commonwealth of the Arts,* **or**
MUSC	2100	*Commonwealth of the Ancient Arts*
PHIL	1100	*Logic* **or**
PHIL	2600	*Philosophy of Human Nature*

Minor and Concentrations

Students are required to have one minor and two concentrations from four curriculum areas approved deemed appropriate by the advisor minor. This plan shows the English minor.

English (Minor) 18 cr.

ENGL	2900	*Children's Literature*
ENGL	2300	*Literature and Disability*
ENGL	2000	*American Literature I: Exploration to Civil War* **or**
ENGL	2100	*American Literature II: Civil War to Present*
ENGL	2200	*British Literature I: Beowulf to Milton* **or**
ENGL	2210	*British Literature II: Pepys to Shelly* **or**
ENGL	2220	*British Literature III: Bronte to Rushdie*
		Two Literature electives at the 3000-4000 level

Physical Sciences 9-10 cr.

GEOG	1000	*Intro to Geography* .

Choose two of the following:

BIOL	1000	*Life Science I* **or**
BIOL	1100	*Life Science II*
BIOL	1200	*Anatomy and Physiology I*
GEOG	1100	*Intro to Geography*
GEOG	1300	*Earth, Sea, and Air*
PHYS	1100	*Physical Science I* **or**
PHYS	1200	*Physical Science II*

Math 9 cr.

MATH	1500	*Informal Number Theory*
MATH	1600	*Informal Math Modeling*
MATH	2000	*Informal Geometry*

History/Social Science 9 cr.

ECON	1250	*Introduction to Economics for Non-majors*

Choose 1 of the following:

HIST	1400	*US History I*
HIST	1500	*US History II*
POLS	1000	*US Government*

Choose 1 of the following:

HIST	1000	*World Civilization I*
HIST	1100	*World Civilization II*
HIST	1150	*World Civilization III*

Interdisciplinary Studies Major for Middle School Education

Students in Middle School Education elect Interdisciplinary Studies as their second major and select a minor and two areas among English, Social Sciences, Mathematics or General Science (to include Biology, Geo-Physical Science, and Chemistry) as defined by the Massachusetts Department of Education. Students will select the areas with the guidance of their advisor in Interdisciplinary Studies in order to remain in compliance with the Massachusetts Department of Education licensure requirements for a middle school teacher.

Students will complete their capstone during student teaching. They will develop an Integrated Unit, which incorporates the 2 areas of study. The capstone will be approved by the Interdisciplinary Studies Chair and supervised by the faculty of the Early Childhood, Elementary, and Middle School Education Department and the cooperating teacher from the school where the student is student teaching.

Required

IDIS	1800	*Global Issues*
IDIS	4000	*Capstone with Seminar*
MUSC	2000	*Commonwealth of the Arts,* **or**
MUSC	2100	*Commonwealth of the Ancient Arts*
PHIL	1100	*Logic* **or**
PHIL	2600	*Philosophy of Human Nature*

Minor and Concentrations

Students are required to have a college approved minor (18 semester hours) in Math, History, or English Literature that corresponds to the license they are seeking and a minimum of 9 semester hours in each of 2 clusters in one other area. Students will select courses in each cluster with the guidance of their advisor in Interdisciplinary Studies to ensure they meet course prerequisite requirements and licensure content competencies. Additional semester hours within one of the areas may be needed to fulfill current content competencies and licensure requirements.

Interdisciplinary Studies Major with a History Minor and Political Science and Economics Fields

History (Minor)

Choose three of the following:

*HIST	1000	*World Civilizations I*	3 cr.
HIST	1100	*World Civilizations II*	3 cr.
HIST	1150	*World Civilizations III*	3 cr.
*HIST	1400	*U.S. History I*	3 cr.
HIST	1500	*U.S. History II*	3 cr.
*HIST	2000	*Historical Methods* **and**	3 cr.
		2 courses at the 2000 or above level	6 cr.

**Strongly recommended for licensure*

Political Science Field

POLS	1000	*U.S. Government*	3 cr.
POLS	2500	*Political Systems of the Modern World*	
		One other POLS course	3 cr.

Economics Field

ECON	1050	*Introduction to Economics for Non-Majors*	3 cr.
ECON	1100	*Macroeconomics*	
		One other ECON course	3 cr.

Interdisciplinary Studies Common Core

IDIS	1800	*Global Issues*	3 cr.
IDIS	4000	*Capstone*	3 cr.
MUSC	2000	*Commonwealth of the Arts* **or**	3 cr.
MUSC	2100	*Commonwealth of the Ancient Arts*	
PHIL	1100	*Logic* **or**	3 cr.
PHIL	2600	*Philosophy of Human Nature* **or**	
PHIL	3340	*Contemporary Philosophy* **or**	
PHIL	4430	*Marxism*	

International Studies

Coordinator

Joshua Spero

Objectives for the International Studies Minor Program

The minor in International Studies program provides students in all majors with the opportunity to examine international and interdisciplinary issues of globalization and communication, multicultural awareness and diversity, citizenship and the world, literature and the arts. These areas relate to international studies and their accompanying categories of courses described below that satisfy requirements of the Minor's Program and in the Liberal Arts ad Sciences Program. For more information, please contact the International Studies Minor Program in the Social Science Department.

Requirements for the Minor in International Studies

The Minor in International Studies requires one of the two introductory courses and five other courses for a total of 18 semester hours from the following, some requiring prerequisites:

Required

IDIS	1200	*Introduction to International Studies or*
IDIS	1800	*Global Issues*

At least one course in the minor must be selected from each of the following categories:

A. Communication, History or Political Science
B. Business and Economics
C. Art, Music or Dance
D. Language, Literature, Culture or Sociology

A. Communication, History or Political Science

The following are courses which can be used for the minor:

COMM	4280	*Intercultural Communication*
HIST	1000	*World Civilization I*
HIST	1100	*World Civilization II*
HIST	1500	*World Civilization III*
HIST	2000	*Medieval Europe*
HIST	2020	*Ancient Greece and Rome*
HIST	2050	*Judaism and Early Christianity*
HIST	2070	*The European Renaissance*
HIST	2080	*The European Enlightenment*
HIST	2100	*Twentieth Century Europe*
HIST	2110	*Europe Today*
HIST	2150	*Twentieth Century Germany*
HIST	2155	*Nazi Germany: Hitler's Rise and Fall*
HIST	2160	*Holocaust*
HIST	2170	*Armenian Genocide*
HIST	2200	*British History to 1688*
HIST	2250	*British History Since 1688*
HIST	2420	*Modern Italian American History: Immigration and Identity*
HIST	2700	*History of Mexico, Central America, and Caribbean*
HIST	2750	*Comparative Slavery*
HIST	2770	*Latin American Revolutions*
HIST	2800	*Far East before 1800*
HIST	2850	*Modern Far East*
HIST	2900	*Middle East History to 1500*
HIST	2920	*Middle East History Since 1500*
HIST	2930	*Modern African History*
HIST	2970	*Women in the Middle East*
HIST	3000	*Modern Italian History: Risorgimento to Today*
HIST	3200	*History of India Since 1500*
HIST	3300	*Modern Russia*
HIST	3350	*Twentieth Century Russia*
HIST	3400	*The Age of Revolutions*
HIST	3420	*The French Revolution*
HIST	3450	*Women in Europe History* **ENGL 1100/1200; HIST 1000* **or** *HIST 1150* **or** *Intermediate European History elective*
HIST	3740	*Vietnam: A Century of Conflict*
HIST	3750	*Cold War*
HIST	3850	*The U.S. in World Affairs: 1898 to the Present*
HIST	3900	*Genocide in World History*
HIST	3950	*Contemporary Latin America*
IDIS	1100	*Women in Latin America*
IDIS	2100	*Dilemmas of Peace & War*
IDIS	2400	*Caribbean Cultures*
POLS	2110	*Europe Today*
POLS	2200	*Contemporary International Relations*
POLS	2500	*Political Systems of the Modern World*
POLS	2701	*International Organizations*
POLS	3400	*Conduct of American Foreign Policy*
POLS	3510	*International Terrorism*
POLS	3700	*Asian Politics and Culture*
POLS	3800	*Third World Politics, Economics and Society*
POLS	4360	*Institute for Understanding Government Decision Making*
HIST	2250	*Cultural Anthropology*

B. Business and Economics

The following are courses which can be used for the minor:

BSAD	4330	*International Marketing* **BSAD 3300*
BSAD	4350	*International Business Management* **BSAD 3300*
ECON	1050	*Introduction to Economics for Non-majors*
ECON	1100	*Principles of Macroeconomics*
ECON	1200	*Principles of Microeconomics*
ECON	2200	*Comparative Economics Systems* **ECON 1000*
ECON	2500	*Economic Development* **ECON 1000*
ECON	3550	*International Economics* **ECON 1000, 1200*
ECON	3600	*International Finance*

C. Art, Music, or Dance

The following are courses which can be used for the minor:

ART	1100	*Art Appreciation*
ART	1150	*Survey of Art Forms I*
ART	1160	*Survey of Art Forms II*
ART	2550	*Renaissance Art*
ART	2900	*Nineteenth Century Art*
ART	3150	*Early Twentieth Century Art*
ART	3300	*The History of Architecture*
MUSC	1500	*World Music*
MUSC	2000	*Commonwealth of the Arts*

MUSC	2100	*Commonwealth of Ancient Arts*
MUSC	3400	*Nineteenth Century Music*
MUSC	3700	*Twentieth Century Music*
PHED	4050	*Art of Dance*

D. Language, Literature, Culture or Sociology

The following are courses which can be used for the minor:

FREN	1000	*French for Beginners I*
FREN	1100	*French for Beginners II*
FREN	2000	*Intermediate French I* **FREN 1100 or permission*
FREN	2100	*Intermediate French II* **FREN 2000 or permission*
FREN	3500	*French Conversation and Composition*
ITAL	1000	*Italian for Beginners I*
ITAL	1100	*Italian for Beginners II*
ITAL	2000	*Intermediate Italian I* **ITAL 1100 or permission*
ITAL	2100	*Intermediate Italian I* **ITAL 2000 or permission*
ITAL	3000	*Italian Culture (in English): From Antiquity to 1800*
ITAL	3100	*Italian Culture (in English): From 1800 to the Present*
ITAL	3300	*Women in Italy*
ITAL	3500	*Italian Conversation and Composition*
SPAN	1000	*Spanish for Beginners I*
SPAN	1100	*Spanish for Beginners II*
SPAN	2000	*Intermediate Spanish I* **SPAN 1000 or permission*
SPAN	2100	*Intermediate Spanish II* **SPAN 2000 or permission*
SPAN	2600	*Hispanic Culture*
SPAN	2700	*Hispanic Literature*
SPAN	3500	*Spanish Conversation and Composition*
SPAN	4000	*Practical Spanish for the Public Services Professional I*
EDUC	2920	*Caribbean Cultures*
ENGL	2200	*British Literature I: Beowulf to Milton*
ENGL	2210	*British Literature II: Pepys to Shelley*
ENGL	2220	*British Literature III: Bronte to Rushdie*
ENGL	2400	*World Literature I*
ENGL	2500	*World Literature II*
ENGL	2650	*Ethnic American Literature*
ENGL	3000	*World Drama*
ENGL	3030	*Middle Ages*
ENGL	3040	*British Literature Since World War II*
ENGL	3050	*20th Century Irish Literature*
ENGL	3070	*European Literature I*
ENGL	3080	*European Literature II*
ENGL	3100	*The World Novel to 1914*
ENGL	3110	*The World Novel Since 1914*
ENGL	3120	*Golden Age of English Renaissance Literature*
ENGL	3700	*African Literature*
ENGL	3710	*South Asian Literature*
ENGL	3720	*Caribbean Literature*
ENGL	4010	*Chaucer and His World*
ENGL	4020	*Shakespeare's Drama: Text and Performance*
ENGL	4030	*Interpreting Shakespeare's Work*
ENGL	4040	*Major English Writers of the 17th Century*
ENGL	4080	*British Romanticism*
ENGL	4100	*Victorian Literature*
ENGL	4115	*British Modernism*
FREN	2600	*French Civilization* **FREN 2100 or permission*
FREN	2700	*French Literature I* **FREN 2100 or permission*
FREN	2800	*French Literature II* **FREN 2100 or permission*
IDIS	1100	*Women in Latin America*
IDIS	2400	*Caribbean Cultures*
IDIS	2500	*Culture and Society of India*
SOC	2250	*Cultural Anthropology*
SOC	2510	*People and Cultures of Africa*
SOC	2600	*Sociology of Developing Societies*

Italian Studies

Chairperson
Rala Diakite`
Associate Professor
Rala Diakite`

Objectives for the Minor in Italian Studies

The minor in Italian Studies offers students in other disciplines the opportunity to incorporate the knowledge of Italian language and culture into their program of studies. In our increasingly global world, this may be particularly valuable to students pursuing Business, Health, Science, and Education fields. The minor in Italian can be combined with majors related to Humanities, since Italy has made key contributions to these fields. Students will achieve an advanced intermediate proficiency in the Italian language, and become acquainted with major literary, historical and artistic developments of Italy throughout its history.

Requirements for the Minor in Italian Studies

The minor in Italian Studies requires a minimum of 18 semester hours. Prerequisite for the program is the introductory sequence ITAL 1000 & 1100 or equivalent proficiency as determined by proficiency exam, although ITAL 1000 and 1100 will not be counted towards the minor.

Required

ITAL	2000	*Intermediate Italian I*
ITAL	2100	*Intermediate Italian II*
ITAL	3500	*Italian Conversation and Composition*

Culture Courses

Required

One from the following:

ITAL	3000	*Italian Culture (in English) I—From Antiquity to 1800*
ITAL	3100	*Italian Culture (in English) II—From 1800 to the Present*

Electives

Two from the following:

ART	2560	*Italian Art of the Renaissance*
HIST	2020	*Ancient Greece and Rome*
HIST	2070	*European Renaissance*
ITAL	2500	*Italy through Film*
ITAL	3000	*Italian Culture (in English) I—From Antiquity to 1800*
ITAL	3100	*Italian Culture (in English) II—From 1800 to the Present*
ITAL	3300	*Women in Italy*
ITAL	4903	*Independent Study*
MUSC	3200	*Opera*

Further Course Options include courses taken in Italy, in an Fitchburg State University program or Fitchburg State University-accredited program, upon permission of the Italian Studies advisor.

No more than six transfer credits will be accepted as credit towards the minor. Transferred credits must have received a minimum grade of 2.5. Students must maintain a 2.5 grade point average in courses towards the minor to remain in the program.

Latin

Assistant Professor

Daniel Sarefield

Latin is currently being taught as a topics course over a two year rotation, from Beginning Latin I to Intermediate Latin II

Leadership Academy (Honors Program)

Director

Sara Levine

Objectives for the Leadership Academy

The Leadership Academy provides an enriched, stimulating set of courses for the best-prepared and most qualified students. Students will be admitted to the program in the freshman year. Students who complete the program do so in place of the Liberal Arts and Sciences requirements. Students may also apply for admission into a Leadership Honors minor in the freshman or sophomore years.

The goal of the Leadership Academy Honors Program is to educate leaders. To accomplish this task the Leadership Academy Honors Program emphasizes the following skills and areas of expertise: conceptual and applied knowledge; communication, collaboration, and organization; problem solving and synthesizing; initiative and creativity; ethical reasoning, and citizenship and service. Students are expected to apply their learning in both the college and the larger community. A GPA of 3.3 must be maintained to continue in the academy.

Criteria of Invitation to Leadership Academy

Freshmen students are invited to join the Leadership Academy based on their high school preparation, SAT scores, and documented evidence of leadership potential.

Students may also apply for entrance into the Leadership Academy Honors Minor. Students applying for the minor must have completed at least one semester at Fitchburg State University with a GPA of at least 3.3 and must apply for admission to the Leadership Academy Director.

Curriculum for the Leadership Academy

The curriculum consists of a freshmen foundation year, 4 honors seminars to be taken in the sophomore and junior years, and 2 semesters of Senior thesis. In addition students must demonstrate proficiency in a foreign language at the intermediate II level and take either a math course, at or above the level of Calculus required for their major, or Discrete Math.

First Year Curriculum (freshmen foundation year)

LEAD	1050	*Honors English I*	3 cr.
LEAD	1005	*Foundations of Leadership I*	3 cr.
LEAD	1600	*Leadership in Biological Issues and Inquiry*	4 cr.
LEAD	1140	*Lead in Outdoors*	1 cr.
LEAD	1200	*Honors English II*	3 cr.
LEAD	1020	*Current Events/Service Learning*	3 cr.
LEAD	1070	*Leadership Academy Humanities: Mozart to Modernism*	3 cr.
LEAD	2030	*Consumer Health*	1cr.

Sophomore and Junior Honors Seminars

LEAD	2100	*Honors Seminar—Literature*	3 cr.
LEAD	2225	*Honors Seminar—History*	3 cr.
LEAD	2150	*Honors Seminar—Humanities*	3 cr.
LEAD	2250	*Honors Seminar—Geophysical Science*	3 cr.

Senior Thesis

(Students may begin this sequence as juniors.)

LEAD 4990 *Senior Thesis Research* **and**
LEAD 4991 *Senior Thesis Writing*

Leadership Minor

The minor consists of the following courses:

LEAD	2150	*Honors Seminar—Humanities*	3 cr.
LEAD	2100	*Honors Seminar—Literature*	3 cr.
LEAD	2225	*Honors Seminar—History*	3 cr.
LEAD	2250	*Honors Seminar—Geophysical Science*	3 cr.
LEAD	4990	*Senior Thesis Research*	3 cr.
LEAD	4991	*Senior Thesis Writing*	3 cr.

Honors Transfer Students

Honors students at Massachusetts public community colleges, colleges, or universities may substitute honors courses that they have taken.

Mathematics

Chairperson

Mary Ann Barbato

Professors	**Associate Professors**	**Assistant Professors**
Lucy Dechene	*Mary Ann Barbato*	*Jennifer Berg*
Claire McAndrew	*Gerald Higdon*	*Bruce Romano*
	Mark Snyder	*Peter Staab*
	Abdulkeni Zekeria	*Amy Wehe*

Objectives for the Program in Mathematics

The Department of Mathematics serves all students at the university. Mathematics majors receive a comprehensive foundation in abstract and applied mathematics as preparation for graduate school or a professional career. Minors in Mathematics receive the mathematical foundation needed for advanced work in their major field.

The department also provides non-majors with courses for their major or with courses for their Liberal Arts and Sciences program.

Requirements for the Major in Mathematics

The bachelor of science and the bachelor of arts in Mathematics is comprised of 42 credit hours of course work, including the following requirements:

MATH	2300	*Calculus I*
MATH	2400	*Calculus II*
MATH	2500	*Introduction to Mathematical Thought*
MATH	2600	*Linear Algebra*
MATH	3300	*Calculus III*
MATH	3400	*Calculus IV*
MATH	4300	*Abstract Algebra*
MATH	3900	*Mathematics Seminar*

At least 15 additional semester hours of advanced mathematics (3000 or 4000 level, nine of which must be at the 4000 level)

CSC	1500	*Computer Science I: Computer Literacy*

Note: MATH 4850, MATH 4860, and MATH 4870 are not advanced mathematics courses.

Graduate courses may be substituted for 4000 level courses. The bachelor of arts degree requires foreign language proficiency at the second year level.

Mathematics majors fulfill the Listening and Speaking requirements of the Liberal Arts and Sciences program by successfully completing one of the following three courses:

SPCH	1000	*Introduction to Speech Communication*
SPCH	1100	*Argumentation and Debate*
SPCH	1200	*Business and Career Communication*

Applied Mathematics Concentration

Applied Mathematics is the study of mathematics that is often used in other technical disciplines such as Chemistry, Biology, Engineering, Physics, Economics and Computer Science. Students who complete the concentration in Applied Mathematics will have a strong mathematical background, an emphasis in a second field and will be able to integrate the mathematics within that field.

Requirements for the Applied Mathematics Concentration

CSC	1500	*Computer Science I*	3 cr.
MATH	1850	*Freshman Seminar in Applied Mathematics*	1 cr.
MATH	2300	*Calculus I*	4 cr.
MATH	2400	*Calculus II*	4 cr.
MATH	2600	*Linear Algebra*	3 cr.
MATH	3300	*Calculus III*	3 cr.
MATH	3400	*Calculus IV*	3 cr.
MATH	3500	*Methods of Applied Mathematics*	3 cr.
MATH	3900	*Math Seminar*	1 cr.
MATH	4450	*Mathematical Modeling*	3 cr.
MATH	4600	*Senior Seminar in Applied Mathematics*	3 cr.
PHYS	2300	*General Physics I*	4 cr.
PHYS	2400	*General Physics II*	4 cr.

Electives

Four of the following, at least three of which must be at or above the 3000 level:

MATH	1900	*Discrete Mathematics*	3 cr.
MATH	2500	*Introduction to Mathematical Thought*	3 cr.
MATH	3150	*Elementary Number Theory*	3 cr.
MATH	3550	*Differential Equations*	3 cr.
MATH	4200	*Probability & Statistics I*	3 cr.
MATH	4250	*Probability & Statistics II*	3 cr.
MATH	4300	*Abstract Algebra*	3 cr.
MATH	4350	*Complex Analysis*	3 cr.
MATH	4400	*Operations Research*	3 cr.
MATH	4500	*Numerical Analysis*	3 cr.

Minor Requirement

Choose one of the following minors: Biology, Chemistry, Computer Science, Economics, Geography/Earth Science, or Psychology.

Bachelor of Science in Mathematics with Initial Teacher Licensure

Students within our Mathematics major can pursue initial licensure as high school Mathematics teachers. This program provides students with both a broad introduction to high school teaching and specific instruction in the theory, research and practice of secondary Mathematics teaching. Students engage in field-based experiences in the school setting supervised by our faculty through on-site pre-practicum experiences coupled with each teaching course and a formal teaching practicum as the capstone experience. This program is nationally accredited by The National Council for Accreditation of Teacher Education and boasts graduates working in high schools throughout the region.

Students interested in pursuing Initial Teacher Licensure must apply for formal admission to the program.

For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate).

Students denied admission to the Practicum can appeal to the appropriate department chair.

Core Courses for Initial Licensure in Mathematics

MATH	2860	*Introduction to Secondary School Teaching**
MATH	3000	*Geometry*
ENGL	4700	*Teaching Reading and Writing Across the Content Area**
MATH	4200	*Probability and Statistics I*
MATH	4850	*Special Methods in Mathematics***
MATH	4860	*Mathematics Practicum in Secondary School (150 hrs.)*
MATH	4870	*Mathematics Practicum in Secondary School (150 hrs.)*
SPED	3800	*Secondary Program for Adolescents with Special Needs**

**Students must have an overall GPA of 2.5 to take any of these courses.*

***Students must have an overall GPA of 2.75, 3.0 in the major courses and passing score on the MTEL Communication and Literacy and Subject Area Exam.*

Post Baccalaureate Program in Mathematics, 8-12

Students who hold a bachelor's degree and wish to become a secondary level (grades 8-12) teacher of Mathematics, may complete a post baccalaureate program that consists of the equivalent of a degree in the subject the individual wishes to teach and 18 credit hours of pedagogical coursework in education.

Students who are interested in the program must meet the following criteria:

- Evidence of a bachelor's degree
- A GPA of 2.8 or better
- Successful completion of the Massachusetts Test for Educator Licensure: Communication and Literacy Skills Sub-test

Having met the above criteria, students enrolled in the post-baccalaureate program will be eligible to apply for graduate assistantships. Students enrolled in the program will be counted toward the compensation load of the graduate program chair or GCE advisor. Supervision of practicum and pre-practicum students in this program will count as part of a professor's full-time day load in accordance with the provisions of the day contract, unless the faculty member chooses compensation from GCE.

Once accepted, students will undergo a transcript review by the graduate program chair or undergraduate advisor, as designated by the department and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the major will be determined through a transcript review. Students will complete all requirements of the major and license as identified in the undergraduate program.
- Courses as identified below in the teacher preparation program (pedagogy courses):

When courses are in a student's plan of study, they will complete the plan of study at the undergraduate level, or at the graduate level if the equivalent is offered.

Once the licensure program is completed, students can request admission to the graduate program after completing additional admissions requirements as designated by the department.

Required Education Courses

MATH	2860	*Introduction to Secondary Education*
ENGL	4700	*Teaching Reading and Writing Across the Content Area*
SPED	3800	*Adolescents with Special Needs*
MATH	4850	*Special Methods in Teaching Math*
MATH	4860	*Practicum I (150 Hrs.)*
MATH	4870	*Practicum II (150 Hrs.)*

Once a student has completed all requirements for professional and content specific courses, they will be eligible for endorsement in their selected field through Fitchburg State University.

Requirements for the Minor in Mathematics

A minor in Mathematics is comprised of 23 semester hours:

- Eight semester hours of Calculus I and II
- Either Abstract or Linear Algebra
- Four electives:

At most one of Discrete Mathematics, Informal Geometry or Introduction to Mathematical Thought.

Three or more mathematics courses at the 3000 or above level, at least one of which must be at the 4000 level.

The Mathematics Minor for Early Childhood, Elementary, or Special Education majors

This is a 21-23 credit hour program which includes seven 3 or 4 credit-hour mathematics courses as described below.

MATH	1500	*Informal Number Theory*
MATH	1300	*Precalculus*
MATH	2000	*Informal Geometry*
MATH	2100	*Technical Calculus* **or**
MATH	2300	*Calculus I*
MATH	1900	*Discrete Mathematics* **or**
MATH	2500	*Introduction to Mathematical Thought*

Choose two of the following:

MATH	1700	*Applied Statistics (if this course is taken, MATH 1900 may not be taken)*
MATH	2400	*Calculus II*
MATH	3000	*Geometry*
MATH	3150	*Elementary Number Theory*
		Any 3000 or 4000 level 3-credit mathematics course except MATH 4850, MATH 4860 and MATH 4870

Notes:

—All prerequisites for a course must be met before the course can be taken.

—For students choosing this minor MATH 1300 will substitute for MATH 1600, a requirement for all Education majors.

—This minor is restricted to students in Early Childhood Education, Elementary Education, or Special Education. This minor will meet the minor requirement of the IDIS major for these students.

Music

Chairperson

Rala Diakite

Professors	**Associate Professor**
Robin Dinda	*Michele Caniato*
Jane Fiske	*Marjorie Ness*

Objectives for the Program in Music

The program in Music provides students with the opportunity to actively engage in music through instrumental or choral work. Courses are designed to fulfill the arts requirement in the Liberal Arts and Sciences Program and to study the history of music at different times across many cultures. A minor is also available.

Requirements for the Minor in Music

The minor in Music requires 18 semester hours of course work. Students must take the following:

MUSC	1000	*Art of Music* or
MUSC	2000	*Commonwealth of the Arts*
MUSC	2200	*Basic Music Theory*
MUSC	4500	*Harmony I*
MUSC	4000	*Choral Arts* or
MUSC	4100	*Instrumental Arts (3 credits)*

The remaining six semester hours may be taken from approved music electives.

Nursing

Chairperson
Linda McKay

Professor
Ann Scannell

Associate Professors
Magda Bechar
Rachel Boersma
Robert Dumas
Linda McKay
Barbara Powers

Lab Coordinator
Carol McKew

Assistant Professors
Deborah Benes
Christine Devine
Sheila Sbrogna
Richard Trifilo

Part-Time Instructors
Jean Kressy
Tara Mariolis
Lola Meskauskas

Instructors
Anne Meyer
Allison Shields
Julie Stevens
Deborah Stone

The nursing program has full approval status from the Commonwealth of Massachusetts Board of Registration in Nursing located at 239 Causeway St. Boston, MA 02114. The nursing program is accredited by the Commission on Collegiate Nursing Education (CCNE) located at One Dupont Circle, NW, Suite 530 Washington, D.C. 20036

Mission of the Nursing Department

The mission of the Fitchburg State University Department of Nursing is to prepare professional nurses capable of meeting societal healthcare needs in a variety of settings. In their teaching, the faculty nurtures respect for diversity, social responsibility, and a commitment to excellence. Collaborative and interactive teaching methods foster the use of critical thinking to build a strong foundation for the practice of holistic nursing. Legal, ethical, and professional standards guide the faculty in teaching the art and science of nursing.

Description of the Program in Nursing

As the first Department of Nursing in the state college system, the Nursing program has a long and proud history. It is:

- Approved by the Massachusetts Board of Registration in Nursing
- Accredited by the Commission on Collegiate Nursing Education (CCNE)
- Supporting a chapter of Sigma Theta Tau, the International Nursing Honor Society
- Supporting the National Student Nurses Association

Terminal Outcomes

Upon completion of the nursing program, the graduate will:

- Synthesize knowledge from the liberal arts, sciences, and nursing as a foundation for safe, client-centered care
- Integrate principles of communication in professional practice
- Synthesize knowledge to provide holistic, culturally congruent care to diverse populations in a global environment
- Incorporate current research and critical thinking in the management of client care
- Incorporate ethical principles in professional practice
- Comply with regulatory, legal and professional standards
- Incorporate principles of management in professional practice

The department provides well equipped laboratories for on-campus practice of clinical skills and health assesment skills, and a wide variety of client care opportunities in affiliated health care agencies. All senior students participate in a 21 hours per week preceptorship capstone clinical experience. Graduates are in great demand in the professional job market, and many have earned advanced degrees and have progressed to leadership positions in practice, administration, research, and education.

Criteria for Admissions and Retention

Students wishing to pursue the nursing major must be admitted to Fitchburg State University as a nursing pre-major. Their high school science courses must include Biology and Chemistry. During freshman year, students must successfully complete all prerequisite nursing courses which include: Writing I and II, Introduction to Sociology and General Psychology, Anatomy and Physiology I and II, and Chemistry for the Health Sciences. A grade of 2.5 or better is required in each of the three science courses. In addition, students must achieve a grade of 82 or above on the Accuplacer Math Readiness exam or have completed Basic Math I and/or II with a grade of 2.0 or better. Students who have successfully met these requirements at the end of freshman year will be automatically admitted into the nursing major. Any student not completing these requirements by May of their freshman year will remain in the college but will be transferred into the undeclared major. The department admits qualified transfer students, who are not licensed nurses, but who meet the prerequisites for the sophomore year on a space-available basis.

Registered Nurses are admitted into junior year. They are provided a variety of opportunities to achieve advanced placement in Liberal Arts and Sciences courses and in nursing via the CLEP program, college examinations, ACE II examinations, a portfolio review process, and articulation agreements with numerous community colleges.

As a professional preparation program, **successful progress in the major** necessitates requirements in addition to those common to all college students.
These include:

- A grade of 2.5 or better, Survey of Micro Organisms and Nutrition.
- A grade of 2.5 or better in all Nursing (NURS) courses. Sophomores who fail or withdraw from one nursing course are required to participate in 30 hours of tutoring at the Fitchburg State Tutoring Center, as well as complete 15 hours of skills in the nursing lab during the semester. Failure to comply will result in dismissal from the program. Juniors and seniors who fail one nursing course will be allowed to repeat the course the following semester on a space available basis. Failure to achieve a 2.5 when the course is repeated will result in disenrollment from the major.
- Students may repeat only one Nursing course throughout the entire program.
- Any subsequent grade of less than 2.5 in other Nursing courses will result in disenrollment from the major.
- Students are responsible for providing their own transportation to clinical practice sites.

- Annually, prior to participation in any clinical nursing course, students must present evidence to the Department of Nursing of: Hepatitis B and other immunizations, CPR certification/recertification at the professional level from the American Heart Association, a physical examination, and Massachusetts nursing licensure (if applicable). Commonwealth of Massachusetts regulations regarding health records for students enrolled in the health sciences must be met through the campus Health Services office.

Good Moral Character Licensure Requirement Information

This policy is used by the Board to review the "Good Moral Character" (GMC) of applicants for initial nurse licensure and applicants for authorization as Advanced Practice Registered Nurses (APRN). This policy is also used by the Board as a guide to determine the GMC of nurses and APRNS already licensed and/or authorized by the Board.

The Board will evaluate each application for initial nurse licensure by examination and by reciprocity, and for APRN authorization under the policy governing the determination of GMC in effect on the date the Board receives the application.

GMC must be demonstrated by reliable evidence of good conduct. Examples of such conduct include: honesty, trustworthiness, integrity, accountability, reliability, distinguishing between right and wrong, avoidance of aggression to self and others, taking responsibility for one's own actions and similar attributes found relevant by the Board.

The **absence** of the attributes of GMC is most often demonstrated by certain conduct. Such conduct includes hostile or destructive conduct to another or to self and conduct that demonstrates a disregard for the welfare, safety or rights of another or disregard for honesty, integrity or trustworthiness. Examples of such conduct include the conduct underlying certain criminal convictions and disciplinary actions taken by a licensure/certification body in another jurisdiction.

For the purpose of the Policy, "conviction" means the final judgment on a verdict or finding of guilty, a plea of guilty, a plea of nolo contendere (no contest), or a plea treated by the court as a guilty plea, regardless of the jurisdiction in which the conviction was entered.

An applicant must be "of good moral character" for the Board to find the individual to be safe and competent to practice nursing. The GMC standard is created by statute and it assists the Board in determining whether an individual's character poses a risk to the public health, safety or welfare and/or to the likely provision by the individual of safe, competent nursing care.

An application for GMC compliance will not be evaluated if the applicant has any conviction(s) or disciplinary action(s) until the applicant documents that:

1. s/he has met all court-ordered requirements and that all criminal matters involving the applicant have been closed for at least one (1) year, and
2. all requirements imposed by a licensure/certification body in connection with disciplinary action (including probation) are completed.

Permanent Exclusion

Conduct underlying certain felony convictions will result in mandatory permanent exclusion from the practice of nursing in Massachusetts.

Examples of such conduct are:

1. conduct underlying the crimes listed (murder; rape; aggravated sexual assault; assault with intent to rape; armed assault with intent to murder with felony intent; armed assault with intent to rob; burglary, armed assault on occupant; kidnapping; breaking and entering, day/night, intent to commit felony, fear; burning a building; burning dwelling house (attempt); indecent assault and battery, child under 14; indecent assault and battery, child 14 or over; unnatural acts with child under 16; assault and battery dangerous intimidation, race, color, religion; administering drugs to obtain sex; induce sex, minor) and any other violent crime against any person(s) that involves extreme disregard of human life;
2. trafficking in, or illegally manufacturing, any controlled substance; and
3. exploitation or criminal mistreatment of a vulnerable individual including, a minor, elder and/or disabled person.

Temporary (Five Year) Exclusion

When the applicant has engaged in any of the following conduct within the five (5) year period immediately before the date of an application s/he shall be temporarily excluded from the practice of nursing in Massachusetts (unless s/he meets one of the exceptions in the section on case-by-case analysis which appears below after this list):

1. conduct for which there is a criminal conviction that does not result in permanent exclusion;
2. knowingly falsifying or attempting to falsify, any documentation or information submitted on an application for examination or licensure or for APRN authorization, that is related to the qualifications for such examination or licensure, or authorization; or
3. cheating on the National Council Licensure Examination (NCLEX) or on any other licensure or certification examination.

Timing of the Period of Temporary Exclusion

Temporary exclusion shall be for:

1. at least five (5) years from the date of the most recent conviction or the date the conduct at issue last occurred (whichever is later), and
2. at least one (1) year from the date of the applicant's successful completion of all court-ordered requirements.

As required by Massachusetts General Laws (G.L.) Chapter 112, sections 74 (RN licensure by examination), 74A (LPN licensure by examination), 76 (licensure by reciprocity), 80B (Advanced Practice authorization) and the Board's regulations at 244 CMR 4.00, 8.02(1)(a), 8.03(1)(a), 8.04(1)(a), 8.04(2)(a), 8.04(3)(a), and 9.03.

Please go to *www.ma.gov/dpb/boards/rn* and click on the link for Statutes, Rules and Regulations then policies then Licensure Policy 00-01 for the Board's policies regarding the GMC licensure requirement. Please refer to this Web site for the full version of the Good Moral Character Licensure Requirement.

The Department of Nursing requires all nursing students to complete a Criminal Offender Record Information (CORI) through the Fitchburg State University Office of Public Safety/each year they are enrolled as a nursing major. In compliance with the policy, all applicants/students are informed that completion of the bachelor of science degree does not guarantee admittance to the registered nurse licensure examination.

Advanced Placement Policy for Registered Nurses

All candidates for advanced placement within the nursing department must hold a current Massachusetts registered nurse license. Advanced placement to the Department of Nursing is awarded: through articulation agreements, within the Registered Nurse track of the department. The Department of Nursing has articulation agreements with nine community colleges. These agreements grant advanced placement to graduates of these colleges who hold a Massachusetts registered nurse license, and who achieved a minimum grade point average of 2.5. Graduates of non-articulated but accredited registered nurse programs who meet the minimum GPA are also eligible for advanced placement. Those applicants who do not meet GPA standards are also able to obtain advanced placement through the use of NLN ACE II exams, which grant Fitchburg State University credit for a score of 90 or better.

Course Exemption Policy

Course exemption for students in the Nursing major is accomplished in two ways. For non-Nursing courses, students must submit an official transcript to the registrar of the college for evaluation. For Nursing courses, students must submit an official transcript to the Registrar's Office showing their grade for the course in question. A copy of this transcript, as well as a course description and a syllabus will be submitted to the department chair. The chairperson, in consultation with appropriate faculty, evaluates the course in relation to the comparable course offered by the Nursing Department. Course exemption is awarded based on the similarities of the courses, as well as the grade achieved in the course to be used in place of a required Nursing course. Courses to be accepted in lieu of a required Nursing course must have a grade of 2.5 or better, and must have been taken at a Board of Registration in Nursing approved AACN or NLN accredited school.

Readmission to the Nursing Department Policy

Students who withdraw from the department or college in good standing may request readmission. The application first goes to the Registrar's Office, which then consults with the chairperson of the Department of Nursing. Readmission depends on clinical space availability. If the student has been away for more than two years, they may be required to repeat courses.

Students who have left the department or college and are not in good standing at the time of departure are not guaranteed readmission to the college or to the department. To gain readmission to the university, students must meet with the dean of Student and Academic Life, who will review the reasons for suspension or dismissal and will make a contract with them if they are readmitted. To be considered for readmission to the Nursing department, if the student left due to academic or clinical difficulty, the student is required to write a letter which describes the reason for the problem, and what has been done to assure that the difficulty will not re-occur. This letter is considered by the Nursing Department Student Policies Committee, who recommends action to the department chairperson. The final decision rests with the department chairperson. Readmission depends on clinical space availability. If the student has been away for more than two years, they may be required to repeat courses. The academic standards of the department are followed. No student will be readmitted if they have failed two or more Nursing courses.

Education Mobility Policy

The Department of Nursing recognizes that career decisions and the selection of the program of study necessary to enter Nursing are the responsibility of the individual and are based on career goals, abilities and resources. As career goals are revised, and nurses seek to gain competencies not achieved in their basic nursing education program, educational mobility enables an individual to move from one educational level to another with acknowledgment of acquired competencies and minimal repetition of previous learning. The development and implementation of efficient and creative methods for identifying and evaluating prior learning and experience is the responsibility of nurse educators.

Transfer Students Policy

Transfer into the Nursing major is competitive. Non-Nursing majors at Fitchburg State University (internal transfers) wishing to apply to the Nursing program must complete a formal application to the program at the beginning of the spring semester during which the student anticipates completion of the prerequisite courses. Transfer students must have a 3.0 or better cumulative average for their college work to date, and are held to the same prerequisite requirements and standards as current Nursing majors.

Those students who are transferring from other institutions (external transfers) must apply through the Admissions Department of the university. External transfers who have previously been enrolled in another nursing program must submit an official letter from the dean or director of that program stating that the student left in good standing and is eligible for readmission to that program.

The number of transfer students admitted to the Nursing major is determined by the availability of clinical sites, faculty, and the number of continuing Nursing students.

Requirements for the Major in Nursing

Graduation requires a minimum of 120 semester hours of credit comprised of:

- 62 credit hours of Nursing
- 40 hours of required core courses in Liberal Arts and Sciences
- 18 hours of elective Liberal Arts and Sciences credits

Once in the Nursing major, each semester of Nursing includes a clinical/laboratory component as well as classroom theory. A variety of inpatient and community agencies in central and eastern Massachusetts offer practice opportunities to assist students toward professional competency.

To provide majors with assistance to meet the progression requirements and achieve success in the program, the department uses individual academic and personal advising by Nursing faculty, referrals to campus services, and internal departmental resources. All senior students select an area of Nursing practice for concentrated study in accordance with individualized learning objectives.

The Massachusetts Board of Registration in Nursing requires that all applicants for the RN Licensing Exam (NCLEX) be of "good moral character." All Nursing majors are required to complete Criminal Offense Records Information (CORI) checks.

Required Courses

NURS	2300	*Health Assessment*
NURS	2500	*Pathopharmacology I*
NURS	2600	*Pathopharmacology II*
NURS	2700	*Foundations of Nursing*
NURS	2900	*Medical-Surgical Nursing I*
NURS	3200	*Mental Health Nursing*
NURS	3300	*Maternal-Newborn Nursing*
NURS	3400	*Medical-Surgical Nursing II*
NURS	3900	*Pediatric Nursing*
NURS	4000	*Nursing Research*
NURS	4400	*Community Health Nursing*
NURS	4750	*Chronic Illness*
NURS	4800	*Selective Practicum*
NURS	4850	*Nursing Leadership and Management*

RN Students

NURS	3500	*Concepts of Nursing I*
NURS	3650	*Topics Portfolio Preparation*
NURS	3600	*Concepts of Nursing II*
NURS	4000	*Nursing Research*
NURS	4400	*Community Health Nursing*
NURS	4500	*Nursing in a Global Community*
NURS	4510	*End of Life Care* **or**
NURS	4520	*Caring for Forensic Population*
NURS	4800	*Selective Practicum*
NURS	4850	*Leadership and Management*

Liberal Arts Requirements

BIOL	1200	*Anatomy and Physiology I*
BIOL	1300	*Anatomy and Physiology II*
*BIOL	1650	*Nutrition*
BIOL	2700	*Survey of Microorganism*
*CHEM	1200	*Elements of Human Biology and Organic Chemistry*
ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
MATH	1700	*Applied Statistics*
PSY	1000	*General Psychology*
PSY	2200	*Human Growth and Development*
SOC	1100	*Introduction to Sociology*

All Nursing majors will complete option C in the new LAS requirements.

**Not required for RN to BSN students.*

Peace Studies

Chairperson
Paul Weizer

Objectives for the Program in Peace Studies

Peace Studies is an interdisciplinary minor that guides students towards an understanding of how and why conflicts originate and the multiple ways that conflicts may be successfully managed. The minor introduces students to the background and skills they will need to lead their national and international contemporaries toward a more peaceful world. After completing the minor, students will be better able to recognize the factors that lead to conflict, appreciate different historical, political, ethical and religious perspectives, and draw on a repertoire of techniques for achieving and sustaining peaceful coexistence.

Requirements for the Minor in Peace Studies

The Peace Studies minor requires 18 semester hours and the following:

Required Courses

IDIS	1000	*Introduction to Peace Studies*
IDIS	2100	*Dilemmas of Peace and War*

At least four courses from the Origins of Conflict and Visions of Peace categories with a minimum of one course in each of these categories:

Origins of Conflict Electives

IDIS	1200	*Intro to International Studies*
IDIS	1800	*Global Issues*
ECON	2500	*Economic Development*
SOC	2500	*Race and Ethnic Relations*
SOC	2600	*Sociology of Developing Societies*
SOC	3000	*Social Stratification*
POLS	2200	*International Relations*
POLS	3800	*Third World Politics, Economics and Society*
PSY	2250	*Psychology of Women*
PSY	2400	*Psychology of Captivity*

Vision of Peace Electives

PHIL	3610	*World Religions*
PSY	2370	*Interpersonal Effectiveness*
PSY	2550	*Group Dynamics*
PSY	2570	*Small Group Leaderships*
SOC	2250	*Cultural Anthropology*

Philosophy

Chairperson	
Rala Diakite	
Professor	**Assistant Professor**
Walter Jeffko	*Martin Henn*

Objectives for the Program in Philosophy

The Philosophy program provides a variety of courses which fulfill requirements in the Liberal Arts and Sciences Program. These courses explore philosophical inquiry from its beginnings to the present, reviewing the history of ideas and the development of ethical systems. A minor is also available.

Requirements for the Minor in Philosophy

The Philosophy minor requires 18 semester hours. Courses for the minor must include:

PHIL	1000	*Introduction to Western Philosophy or*
PHIL	2600	*Philosophy of Human Nature*
*PHIL	3310	*Ancient and Medieval Philosophy*
PHIL	3330	*Renaissance and Modern Philosophy* **or**
PHIL	3340	*Contemporary Philosophy*

At least one course from the following:

PHIL	2500	*Contemporary Ethical Problems*
PHIL	2550	*Contemporary Ethical Systems*
PHIL	2600	*Philosophy of Human Nature*
PHIL	3600	*Philosophy of Religion*
PHIL	4100	*Philosophy of Art*
PHIL	4200	*Political and Social Philosophy*
	Two additional Philosophy courses	

Physics

Professor	Associate Professors	Assistant Professor
Jiang Yu	*Lawrence Guth*	*Bruce Duncan*

Objectives for the Physics Program

The Physics program offers a variety of courses which fulfill the laboratory science requirement for all students.

PHYS 1100, 1200, 2000, are for non-science majors and are strongly recommended for satisfying the Liberal Arts and Sciences requirements.

PHYS 2300 and 2400 are the standard non-calculus general Physics courses offered at most baccalaureate institutions. The sequence is taken by chemistry, biology, computer sciences, mathematics, and most industrial technology majors. They are also appropriate to the non-science major interested in applying mathematical problem-solving techniques to physical settings.

PHYS 2000, 3100, 3200, 3300, 4100, and 4200 are all advanced courses that are offered from time to time in the form of free electives to those students who have had PHYS 2300 and 2400 and have shown keen interest in physics and mathematics.

Political Science

Chairperson	
Paul Weizer	
Professors	**Associate Professors**
Eric Budd	*Rod Christy*
Paul Weizer	*Joshua Spero*

Objectives for the Program in Political Science

Courses in Political Science are intended for any student with a general interest in politics and government. They are also designed to provide a proper background for students interested in pursuing graduate study or a career in law, public administration, or government and political science.

Requirements for the Major in Political Science

The bachelor of science and bachelor of arts in Political Science require 36 hours of course work. All bachelor of science and bachelor of arts candidates will pick an area of concentration after consulting with their faculty advisor.

Required Courses

CSC	1010	*Computer Science Basics*
MATH	1700	*Applied Statistics*
PHIL	4200	*Political and Social Philosophy* **or**
POLS	4200	*History of Political Theory*
POLS	1000	*U.S. Government*
POLS	1100	*Introduction to Political Science*
POLS	2200	*Contemporary International Relations*
POLS	2400	*Research Methods***
POLS	4000	*Senior Seminar****
SPCH	1000	*Introduction to Speech* or
SPCH	1100	*Argument and Debate* **or**
POLS	4350	*Moot Court*

PSY 2100 or CJ 3130 Research Methods (alternatives)

***Computer Literacy Requirement*

****Junior/Senior Writing and Speaking/Listening Requirement*

Concentrations

With the assistance of their academic advisor, students will select an area of concentration in American Government/Law or International Politics. Select four courses from either concentration.

American Government/Law

POLS	1500	*State and Urban Government*
POLS	2270	*Introduction to the Legal Process*
POLS	2550	*Sex, Race and Constitution*
POLS	2600	*The First Amendment*
POLS	2700	*Criminal Procedure: Rights of the Accused*
POLS	3000	*Public Policy Analysis: Case Studies in American Politics*
POLS	3500	*Constitutional Law*
POLS	4350	*Moot Court*
POLS	4360	*Institute for Understanding Government Decision Making*

International Politics

IDIS	1500	*Introduction to Peace Studies*
IDIS	1800	*Global Issues*
POLS	2110	*Europe Today*
POLS	2500	*Political Systems of the Modern World*
POLS	2701	*International Organizations*
POLS	3400	*Conduct American Foreign Policy*

POLS	3510	*International Terrorism*
POLS	3700	*Asian Politics and Culture*
POLS	3800	*Third World Politics, Economics and Society*
POLS	4360	*Institute for Understanding Government Decision Making*

Capstone

POLS	4940	*Internships in Political Science*
POLS	4000	*Senior Seminar in Political Science*

Requirements for the Minor in Political Science

The minor in Political Science includes:

Required Courses

POLS	1000	*U.S. Government*
POLS	1100	*Introduction to Political Science*

Electives

Choose four courses with at least one from each of the above concentrations.

Psychological Science

Chairperson	Coordinator	
Randall Grometstein	*Cheryl Armstrong*	
Professors	**Associate Professors**	**Assistant Professors**
John Hancock	*Cheryl Armstrong*	*Daneen Deptula*
Peter Hogan	*Cheryl Goldman*	*Laura Garofoli*
Thomas Schilling	*Sara Levine*	*Hildur Schilling*
Robert Wellman	*Jannette McMenamy*	*Colleen Sullivan*

Objectives for the Program in Psychological Science

The goal of the Psychological Science Program is to educate students in the scientific study of human behavior. The program combines theoretical, methodological, and applied topics enabling students to acquire knowledge and skills that enrich their personal lives and work careers.

The Psychological Science Program is a component of the Behavioral Sciences Department. It serves majors and minors in the discipline and offers supportive courses for a variety of other programs in the university.

Requirements for the Major in Psychological Science

Required Core Courses (20 credits)

PSY	1100	*General Psychology* **or**
PSY	2200	*Human Growth and Development*
MATH	1700	*Applied Statistics*
PSY	2000	*Research, Design and Analysis I*
PSY	2100	*Research, Design and Analysis II*
PSY	3410	*Experimental Psychology*
PSY	3480	*History and Systems*

Breadth Requirements (12 credits)

PSY	2350	*Abnormal Psychology* **or**
PSY	2840	*Developmental Psychopathology**
PSY	3550	*Cognition* **or**
PSY	3500	*Psychology of Learning*
PSY	3420	*Biological Psychology* **or**
PSY	2140	*Cognitive Neuroscience*
PSY	2300	*Psychology of Personality* **or**
PSY	2500	*Social Psychology*

Psychological Science Electives **15 cr.**

Select five from courses not taken in the breadth requirements or the list below. At least one elective must be a developmental course. These are identified with an asterisk.

PSY	2230	*Adolescent Psychology**
PSY	2250	*Psychology of Women*
PSY	2260	*Gerontology**
PSY	2265	*Health Psychology*
PSY	2280	*Psychology of Human Sexuality*
PSY	2370	*Interpersonal Effectiveness*
PSY	2450	*Psychological Testing*
PSY	2550	*Group Dynamics*
PSY	2570	*Small Group Leadership*
PSY	2610	*Organizational Psychology*
PSY	2645	*Psychology of Human Resources*
PSY	2655	*Organizational Leadership*
PSY	2660	*Psychology of Sport and Exercise*
PSY	2680	*Psychology in Action*
PSY	2700	*Educational Psychology*
PSY	2810	*Cognitive Development**
PSY	2820	*Perceptual Development**
PSY	2830	*Socio-Emotional and Personality Development**
PSY	2950	*Addictive Behaviors*
PSY	3220	*Advanced Child Psychology**
PSY	3530	*Motivation*

**Although listed in two areas you may count this course for one area*

Requirements for Concentrations in Psychological Science

Two concentrations are currently available to any student majoring in psychological science; a concentration in Industrial and Organizational Psychology and a concentration in Developmental Psychology. When a student has successfully completed all of the required courses for a concentration, a "petition for a Minor" form must be modified appropriately (cross out "minor" and write in the appropriate concentration), signed by the advisor and chairperson and turned in to the Psychological Science Coordinator who will forward it to the Registrar. The area of concentration will be denoted on the student's transcript.

Note: It is not necessary for students to pursue a concentration in order to fulfill the requirements of the psychology major. The concentration is a special option available for students with interests in the fields of developmental and I/O psychology.

Concentration in Developmental Psychology

The Developmental Psychology Concentration is appropriate for students who plan to undertake advanced work in Developmental Psychology. It would also be useful for those who seek future employment in such related fields as counseling and clinical psychology, education, and human services.

The Concentration consists of a minimum of 12 credits selected from two groups of courses. Courses in Group I examine the interrelationships among perceptual, cognitive, social, personality, and physical dimensions in the developing individual as well as the context in which development occurs. Courses in Group II provide opportunities for in-depth exploration of developmental issues through basic research, special projects in applied developmental psychology, or internships.

Group I

Three of the following are required

PSY	2810	*Cognitive Development*
PSY	2820	*Perceptual Development*
PSY	2830	*Socio-emotional and Personality Development*
PSY	2840	*Developmental Psychopathology*
PSY	2260	*Gerontology*

Group II

One of the following is required

PSY	3220	*Advanced Child Psychology*
PSY	4810/ 4820	*Practicum in Psychology**
PSY	4940/ 4950/ 4960	*Internship in Psychology**
PSY	4900	*Independent Study**

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* *These courses should be related to Developmental Psychology*

Concentration in Industrial and Organizational Psychology

The Industrial and Organizational Psychology Concentration is designed to prepare students entering a wide range of occupations in business and industry. It is particularly appropriate for those intending careers in personnel or human resources.

Required

PSY	2610	*Organizational Psychology (required but not a prerequisite for other I/O courses)*
PSY	2500	*Social Psychology*
PSY	2370	*Interpersonal Effectiveness*
BSAD	1850	*Introduction to Business*
PSY	4810/ 4820	*Practicum in Psychology (with a focus upon I/O Psychology)*

Two of the following courses are also required:

PSY	2655	*Organizational Leadership*
PSY	2660	*Psychology of Human Resources*
PSY	4950	*Internship in Psychology (with a focus upon I/O Psychology)*

The following business-related courses are recommended

BSAD	3200	*Principles of Management*
BSAD	3210	*Human Resources Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3310	*Consumer Behavior*
BSAD	4200	*Organizational Behavior and Theory*
ECON	1100	*Principles of Economics: Macroeconomics*
ECON	1200	*Principles of Economics: Microeconomics*

Requirements for the Minor in Psychological Science

PSY	1100	*General Psychology* **or**
PSY	1200	*Human Growth and Development*

And choose one of the following:

PSY	2110	*Introduction to Research Methods*
CJ	3130	*Criminal Justice Research Methods**
HMSV	2050	*Research Methods for Human Service Practice**
SOC	3130	*Basic Skills of Social Research**

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* *Students who take a research course that is not PSY 2130 are required to take an extra elective course in Psychology to fulfill the 18 credits in Psychology.*

In addition to the two core courses, students must take a minimum of two electives from Group 1. The additional 3 or 4 electives may be selected from either group 1 or 2.

Group 1 Electives

PSY 2140	*Introduction to Cognitive Neuroscience*
PSY 2300	*Psychology of Personality*
PSY 2350	*Abnormal Psychology*
PSY 2480	*Developmental Psychopathology*
PSY 2500	*Social Psychology*
PSY 2810	*Cognitive Development*
PSY 2820	*Perceptual Development*
PSY 2830	*Socio-Emotional and Personality Development*
PSY 2950	*Addictive Behaviors*
PSY 3420	*Biological Psychology*
PSY 3430	*Perception*
PSY 3500	*Psychology of Learning*
PSY 3530	*Motivation*
PSY 3550	*Cognition*

Group 2 Electives

PSY 2320	*Adolescent Psychology*
PSY 2250	*Psychology of Women*
PSY 2260	*Gerontology*
PSY 2370	*Interpersonal Effectiveness*
PSY 2450	*Psychological Testing*
PSY 2550	*Group Dynamics*
PSY 2570	*Small Group Leadership*
PSY 2610	*Organizational Psychology*
PSY 2645	*Psychology of Human Resources*
PSY 2655	*Organizational Leadership*
PSY 2660	*Psychology of Sport and Exercise*
PSY 2665	*Health Psychology*
PSY 2680	*Psychology in Action*
PSY 2700	*Educational Psychology*
PSY 3220	*Advanced Child Psychology*

**Although listed in two areas you may only count this course for one area*

The remaining required courses may be selected from any one of the above mentioned areas or from the general electives.

Romance Languages

Chairperson

Rala Diakite`

Professor	**Associate Professor**
Maria Jaramillo	*Rala Diakite`* *Keyvan Karbasioun*

Objectives for the Romance Languages Program

This program in Romance languages offers students the opportunity to incorporate knowledge of Italian, Spanish and French languages and culture into their program of studies. In our increasingly global world, this may be particularly valuable.

In the Romance Language Minor, students will achieve an intermediate proficiency in one of the languages, and become acquainted with a second language. Students will also be exposed to literary, historical and artistic developments of the relative countries.

Requirements for the Minor in Romance Language

The Minor in Languages requires a minimum of 18 credits in two of the three Romance languages. 1000 level courses can be counted for only ONE of the languages. The student may enter the language sequence above the 1000 level by demonstrating his/her proficiency through testing, and permission of the instructor.

FREN	1000	*French for Beginners I*
FREN	1100	*French for Beginners II*
FREN	2000	*Intermediate French I*
FREN	2100	*Intermediate French II*
FREN	3500	*French Conversation and Composition*
ITAL	1000	*Italian for Beginners I*
ITAL	1100	*Italian for Beginners II*
ITAL	2000	*Intermediate Italian I*
ITAL	2100	*Intermediate Italian II*
ITAL	3500	*Italian Conversation and Composition*
SPAN	1000	*Spanish for Beginners I*
SPAN	1100	*Spanish for Beginners II*
SPAN	2000	*Intermediate Spanish I*
SPAN	2100	*Intermediate Spanish II*
SPAN	2600	*Hispanic Culture*
SPAN	2700	*Hispanic Literature*
SPAN	3500	*Spanish Conversation and Composition*

No more than 6 transfer credits from a non-FSC program will be accepted as credit towards the minor. Transferred credits must have received a minimum grade of 2.0. Students must maintain a 2.5 grade point average in courses towards the minor to remain in the program.

Social Science

Chairperson
Randall Grometstein

Objectives for the Social Science Minor

The Social Science minor was designed for students in elementary, early childhood, middle and special education who also take an Interdisciplinary Studies major. It also can be taken by other majors who have an interest.

Requirements for the Minor in Social Science

The minor requires six courses, 18 credit hours, from among the Social Science disciplines. One Economics course, one Political Science course, and three History courses, one from each of the three History sub-fields (United States History, European History, and Non-Western History or World Civilizations). The final course may be drawn from any Social Science discipline. At least two courses must be 2000-level or above.

In schematic form:

1 Economic course
1 Political Science course
1 U.S. History course
1 European History
1 Non-western/World Civilizations History course
1 elective from any Social Science Discipline
2 2000-level or above courses included in the preceding list

Sociology

Chairperson
Randall Grometstein
Professors
Augustine Aryee
Margot Kempers
Jason Nwankwo

Coordinator
Jason Nwankwo
Assistant Professor
G.L. Mazard Wallace

Objectives for the Program in Sociology

The Sociology major was designed to provide students with refined approaches and methods of research and a broad understanding of the social world.

The curriculum has been developed to provide the theoretical background and research skills essential for work concerned with human behavior. Graduates of the program are prepared for immediate entry into a wide variety of occupations in business, education, industry, social service, and public service settings. In addition, many graduates continue formal study by enrolling in advanced degree programs in sociology and related fields.

Requirements for the Major in Sociology

The major requires 36 semester hours of course work in Sociology. This total includes 12 semester hours of core courses and 24 semester hours of electives. Majors are encouraged to take advantage of relevant courses from the other three majors in the Behavioral Sciences Department.

Core Required Courses

SOC	1100	*Introduction to Sociology* *(prerequisite for all other Sociology courses)*
SOC	2250	*Cultural Anthropology*
SOC	3130	*Basic Skills of Social Research*
SOC	3160	*Social Theory*

Speech Requirement

Choose one course

SPCH	1000	*Introduction to Speech Communication*
SPCH	1600	*Public Speaking*

State and Federal Constitution Proficiency Requirement

Can be fulfilled by completing one of the following courses:

POLS	1000	*United States Government*
POLS	1500	*State and Urban Government*
POLS	2270	*Introduction to the Legal Process*
POLS	3600	*Civil Rights and Civil Liberties in the United States*
HIST	1400	*United States History I*
HIST	1500	*United States History II*

Requirements for the Minor In Sociology

The minor in sociology consists of 18 semester hours in Sociology. There is a core of 9 semester hours including:

SOC	1100	*Introduction to Sociology*
SOC	3130	*Basic Skills in Social Research*
SOC	3160	*Social Theory*

The remaining 9 semester hours may be selected according to student needs and interests from Sociology electives.

Spanish

Chairperson
Rala Diakite`
Professor
Maria Jaramillo
Associate Professor
Keyvan Karbasioun

Objectives for the Program in Spanish

The Spanish Program offers students the opportunity to begin the study of Spanish language and culture or to continue study at an intermediate or advanced level.

Placement Exam

Students who have taken more than one year of Spanish in high school, but have not yet taken a Spanish course at Fitchburg State University, and students who speak Spanish at home are required to take a placement exam if they wish to register for a Spanish course at the course at the college level.

Requirements for the Minor in Spanish

The minor in Spanish requires a minimum of 15 semester hours, including the following:

Required Courses

SPAN	2200	*Intermediate Spanish I*
SPAN	2300	*Intermediate Spanish II*

Electives

Choose at least three from the following:

SPAN	2600	*Hispanic Culture*
SPAN	2700	*Hispanic Literature I*
SPAN	3500	*Spanish Conversation and Composition*
SPAN	4903	*Independent Study*

Special Education

See Teacher Preparation Programs

Speech

Chairperson
Patrice Gray
Associate Professor
Angela Nastasee-Carder

Objectives for the Speech Concentration

These courses offer a number of opportunities for students to meet the Speech requirements in many different departments across campus. Students should check program requirements with their advisor to see which courses are recommended.

Course Opportunities

SPCH	1000	*Introduction to Speech Communication*
SPCH	1100	*Argument and Debate*
SPCH	1400	*Small Group Communication*
SPCH	1600	*Public Speaking*
SPCH	1700	*Voice and Articulation*
SPCH	2600	*Persuasion*
SPCH	2800	*Rhetorical Criticism*
SPCH	3000	*Speech Writing*
SPCH	3100	*General Semantics*

Teacher Preparation Programs

Programs

- Early Childhood (PreK-2)
- Elementary Education (1-6)
- Middle School Education (5-8)
  - English
  - Math/Science
  - Math
  - General Science
  - Humanities
  - History
- Special Education
  - Teacher of Students with Moderate Disabilities (PreK-8) with possibility of earning Elementary Teacher License
  - Teacher of Students with Severe Disabilities (All Levels)
- Secondary Education
  - Biology (8-12)
  - Earth Science (8-12)
  - English (8-12)
  - History (8-12)
  - Mathematics (8-12)
  - Technology Education (5-12)
- Technology Education

The professional education programs at Fitchburg State University are under the broad coordination of an Education unit that includes the following licensures and degree areas:

- Undergraduate and Graduate Teacher Preparation Programs
- Graduate Guidance Counseling Program
- Graduate Educational Leadership and Management Programs.

Numerous partnerships with schools, educational organizations and the private sector are a hallmark of the university's commitment to supporting the preparation of school professionals. For more detailed information about educational partnerships, contact the office of the dean of Education at (978) 665-3239 or *www.fitchburgstate.edu.edunit*.

Stages of the Undergraduate Teacher Preparation Program

Students interested in graduation with a Massachusetts educator's license from Fitchburg State University must complete a comprehensive program, working closely with their advisor to ensure all requirements for licensure have been met. There are three "stages" in the process toward licensure. At each stage, a student's credentials are reviewed to determine their readiness and qualifications to move forward in the teacher preparation program and to ensure their success in schools. Students who are unable to meet all requirements at any stage may not move forward and should meet with their advisor to determine whether or not to continue in the teacher preparation program.

Stage 1 Formal Admission to the Teacher Preparation Program

All students interested in becoming teachers must be formally admitted to the program of their choice, usually by the end of sophomore year. At Fitchburg State University, we prepare future teachers in the context of a liberal arts and sciences education. Students begin their career at Fitchburg State University, indicating their interest in becoming a teacher and selecting majors that will provide the appropriate foundation for meeting the rigorous standards required for success.

The first 44 credits of the undergraduate program is devoted to acquiring a broad understanding of subject matter across the liberal arts and sciences, and demonstrating a command of rigorous content in the language arts, mathematics, sciences and social sciences.

Students interested in teaching at all fields and levels (Early Childhood, Elementary, Middle School, Secondary and Special Education) are admitted to a teacher preparation program only after they have completed the following requirements by the end of their sophomore year:

- 44 credits of specified content and subject area courses,
- A minimum GPA of 2.5 overall,
- Successful completion of the designated "core courses" for their program,
- Successful completion of pre-practicum experience(s) designated for their program,
- A passing score on the communication and literacy portion of the Massachusetts Test for Educator Licensure,
- Successful completion of at least two disposition assessment reviews (one from a faculty member and one from a supervising practitioner in a pre-practicum course),
- Completion of the university's math and reading readiness requirements,
- Recognition of a list of requirements to be completed prior to student teaching, including a criminal background check, and
- Recommendation for admittance to the teacher preparation program by the teacher candidate's advisor with approval from the dean of education. Students denied formal admission to a teacher preparation program can appeal to the appropriate department chair and the dean of education.

Additional course work required for graduation from individual programs and certificates

Initial teacher licensure requires knowledge of the Federal Constitution and that of the Commonwealth. Candidates may fulfill it by successfully completing one of the following courses:

HIST	*1400*	*United States History I*
HIST	*1500*	*United States History II*
POLS	*1000*	*U.S. Government*

Stage 2 Admission to the Practicum

Students seeking to enroll in student teaching must successfully complete the following prior to the completion of their junior year (75 credits):

- A minimum GPA of 2.75 overall and 3.0 in the major,
- Successful completion of at least two disposition assessment reviews (one from a faculty member and one from a supervising practitioner in pre-practicum course) in addition to those completed in Stage I,
- A passing score on the appropriate content tests of the Massachusetts Test for Educator Licensure,
- Positive evaluations of 75 hours of pre-practicum experiences, and
- Positive recommendation by the faculty of the department or program.

Application to the Practicum

In October and February of each year, the Fitchburg State University placement coordinator conducts a meeting to explain the practicum application process for teacher candidates who have successfully completed a Stage II review. Candidates are provided with a list of schools that have entered into a formal partnership with Fitchburg State University and who have identified mentors who have been approved by the dean of education as supervising teachers. Supervising teachers must minimally hold a Massachusetts educator's licensure in the area that the candidate is seeking, have the recommendations of their principal, and have professional status or equivalent in the school/district. Candidates submit their top three choices from the list of qualified schools however, at least one placement for teacher candidates in Early Childhood, Elementary, Middle School or Special Education must be in an urban district. Mentors are selected in collaboration with the administration of the partnership schools.

Candidate placements are submitted to the appropriate program for approval. Contracts are then sent to the approved schools confirming the teacher candidate's assignment. The teacher candidate then contacts the supervising practitioner for an interview. If the supervising teacher approves the candidate's placement, the candidate is notified by the Educator Licensure Office. If the supervising teacher objects to the assignment, the placement coordinator assists the candidate in making a second selection.

During the practicum experience the candidate is expected to follow the schedule of the school, not the Fitchburg State University schedule.

Stage 3 Recommendation for licensure

Students who have successfully completed the following requirements will be recommended for licensure by the Commonwealth of Massachusetts:

- Final review of dispositions assessments (at least two that have been completed in the practicum, one by a college supervisor and one by a supervising practitioner),
- Successful completion of the practicum and recommendation for licensure by the college supervisor and the supervising practitioner,

- Completion and review of credentials folder,
- Final review of portfolio or equivalent,
- Completion of exit survey by candidate,
- Endorsement for licensure by the Dean of Education,

To apply for licensure, the candidate follows the procedure outlined on the Fitchburg State University Web site, *www.fitchburgstate.edu/edunit* which includes:

- Submission of a Preservice Performance Assessment form for each practicum experience
- Print out of a completed online application form with the Department of Elementary and Secondary Education and
- Request for a formal transcript from the Registrar's office which will verify completion of The National Council for Accreditation of Teacher Education approved program

Education

Chairperson
Shari Stokes

Professors	Associate Professors	Assistant Professors
Ronald Colbert	*Glenda Ouellette*	*Ellen Borsuk*
Laurie DeRosa	*Susan Rosa*	*Felicia Farron-Davis*
Pamela Hill	*Diana Suskind*	*Nancy Murray*
Anne Howard		*Annette Sullivan*
Daniel Nomishan		
Shari Stokes		

Instructor
Julie Cicero

The Education Department offers programs in Early Childhood, Elementary, Middle School and Special Education.

Early Childhood, Elementary, Middle School and Special Education

Objectives for Early Childhood, Elementary, Middle School and Special Education

The Education Department of Fitchburg State University fully recognizes and embraces the diversity and challenges that teachers face in today's public and private schools. The comprehensive program of study is one which deliberately integrates and celebrates these challenges by providing an inclusive model for teacher preparation. Each course provides research based methods to assess students' needs in order to differentiate instruction. Techniques and strategies that address the needs of all learners in the inclusion classroom are emphasized. Courses have been specifically designed to provide teacher candidates with content and strategies to be knowledgeable, skillful, ethical, and caring educators in the 21st century.

The department prepares its graduates to be teachers of Early Childhood (grades P-2), Elementary (grades 1-6), Middle School (grades 5-8), Special Education Moderate Disabilities (PreK-8) and Severe Disabilities (all levels).

Program of Study

All Early Childhood, Elementary, Middle School and Special Education majors graduate with two majors—one in Education and one in Liberal Arts and Sciences.

Teacher education majors place emphasis on college coursework that honors cultural, racial, linguistic and social diversity. No less than 48 semester hours of coursework is integrated with a variety of field-based experiences in schools.

Field-based experiences begin early in the majors and are enhanced by strong departmental collaboration with exemplary schools and practitioners in the region. During their final year in the program teacher candidates enroll in a long professional experience. In the fall they participate in a 150 hour practicum that is linked to pedagogical courses. This allows candidates to readily apply what they are learning in the classroom setting. Many students enjoy opportunities to foster attitudes and skills for creative, collegial teaching in the diverse and changing environment of our McKay Campus School on the college campus.

The, Education Club, S.E.A.M., a student chapter of M.T.A. and Kappa Delta Pi Honor Society offer students the opportunity to grow professionally while meeting with students of similar interests.

Requirements for the Major in Early Childhood, Elementary, Middle School and Special Education

Majors in Early Childhood, Elementary, Middle School (Math/Science and Humanities) Education and Special Education (PreK-8) also require a major in Interdisciplinary Studies. See the IDIS major for Middle School Education Math/Science and Humanities. Middle School majors in Biology, English, History and Mathematics follow the requirements of the major.

Requirements for Initial Teacher Licensure

For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate).

Early Childhood Education (PreK-2)

Early Childhood educators are prepared to work with young children with and without disabilities in Pre-K through grade 2 settings. They acquire a strong understanding of how young children learn and they are able to facilitate learning utilizing developmentally appropriate practices. The Massachusetts Tests for Educator Licensure required for this program are Communication and Literacy, Early Childhood and Foundations of Reading.

The plan of study is as follows:

SPED	2210	*Diversity and Disabilities (3hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Education (15 hr p.p.)*	3 S.H.
EDUC	2600	*Developmentally Appropriate Practices for Young Children (fall only) (15 hr. p.p.)*	3 S.H.
EDUC	2630	*Literacy PreK-8 Classrooms (15 hr. p.p.)*	3 S.H.
EDUC	2640	*Language Arts in Education (15 hr. p.p.)*	3 S.H.
SPED	2800	*Strategies in Reading Instruction*	3 S.H.
EDUC	2850	*Investigations in Science/Social Studies (fall only) (15 hr. p.p.)*	3 S.H.
EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDUC	2930	*The Arts III: Integration*	1 S.H.
SPED	2970	*Assessment of Students*	3 S.H.

Onsite Immersion Semester (Senior Year)
courses taken concurrently

SPED	3400	*Teaching Math with/without Disabilities*	3 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.
EDUC	3740	*On-site Immersion (150 hrs)*	3 S.H.

Student Teaching (Senior Year)
courses taken concurrently

EDUC	4550	*Collaboration & Communities*	3 S.H.
EDUC	4862	*Practicum in Early Childhood I*	4.5 S.H.*
EDUC	4863	*Practicum in Early Childhood II*	4.5 S.H.*
		Total	**48 credits**

Liberal Arts and Sciences Requirements

BIOL	1000	*Life Science I* **or**
BIOL	1100	*Life Science II*
HIST	1000	*World Civilization I* **or**
HIST	1100	*World Civilization II* **or**
HIST	1150	*World Civilization III*
HIST	1400	*US History I* **or**
HIST	1500	*US History II*
MATH	1500	*Informal Number Theory*
MATH	1600	*Informal Math Modeling*
MATH	2000	*Informal Geometry*
PHYS	1100	*Physical Science I* **or**
PHYS	1200	*Physical Science II*
PSY	1100	*Gen Psych*

Requirements for the Minor in Early Childhood

SPED	2210	*Understanding Diversity and Disabilities (core)*	3 S.H.
EDUC	2300	*Foundations of Inclusive Education (core)*	3 S.H.

Choose four courses from the list below

EDUC	2600	*DAP Programs for Young Children*	3 S.H.
EDUC	2630	*Literacy in the PreK-8 classroom*	3 S.H.
EDUC	2640	*Language Arts in Education*	3 S.H.
SPED	2800	*Strategies in Reading Instruction*	3 S.H.
EDUC	2850	*Investigations in Science and S. S.*	3 S.H.
SPED	2970	*Assessment of Students with Disabilities*	3 S.H.

EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDU	2930	*The Arts II: Integration*	1 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.

Elementary Education (1-6)

Graduates of the Elementary Education program are well prepared provide classroom instruction to children with various learning needs in grades 1-6. They develop effective learning strategies in the teaching of reading, math, science, social studies and the arts and they are able to effectively integrate learning across curriculum areas. The Massachusetts Tests for Educator Licensure required for this program are Communication and Literacy, General Curriculum and Foundations of Reading.

The plan of study is as follows:

SPED	2210	*Diversity and Disabilities (3 hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Education (15 hr. p.p.)*	3 S.H.
EDUC	2630	*Literacy PreK-8 Classrooms (15 hr. pp.)*	3 S.H.
EDUC	2640	*Language Arts in Education (15 hr. p.p.)*	3 S.H.
SPED	2800	*Strategies in Reading Instruction*	3 S.H.
EDUC	2870	*Social Studies and Writing (15 hr. p.p.)*	3 S.H.
EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDUC	2930	*The Arts III: Integration*	1 S.H.
EDUC	2970	*Assessment for Instruction*	3 S.H.

Onsite Immersion Semester (Senior Year)
courses taken concurrently

EDUC	3440	*Science in Education*	3 S.H.
EDUC	3480	*Teaching Math/Effectively*	3 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.
EDUC	3740	*On-site Immersion (150 hrs)*	3 S.H.
EDUC	3440	*Science in Education*	3 S.H.

Student Teaching (Senior Year)
courses taken concurrently

EDUC	4550	*Collaboration & Communities*	3 S.H.
EDUC	4882	*Practicum in Elementary I*	4.5 S.H.*
EDUC	4883	*Practicum in Elementary II*	4.5 S.H.*
		Total	**48 S.H.**

Liberal Arts and Sciences Requirements

BIOL	1000	*Life Science I* **or**
BIOL	1100	*Life Science II*
HIST	1000	*World Civilization I* **or**
HIST	1100	*World Civilization II* **or**
HIST	1150	*World Civilization III*
HIST	1400	*US History I* **or**
HIST	1500	*US History II*
MATH	1500	*Informal Number Theory*
MATH	1600	*Informal Math Modeling*
MATH	2000	*Informal Geometry*
PHYS	1100	*Physical Science I* **or**
PHYS	1200	*Physical Science II*
POLS	1000	*U. S. Government*
PSY	1100	*General Psychology*
PSY	1200	*Human Growth and Development*
PSY	2210	*Child Psychology*

Interdisciplinary Studies, English, History, or Mathematics major consistent with Middle School Teacher licensure sought.

Requirements for the Minor in Elementary Education

SPED	2210	*Understanding Diversity and Disabilities (core)*	3 S.H.
EDUC	2300	*Foundations of Inclusive Education (core)*	3 S.H.

Choose four courses:

EDUC	2630	*Literacy in the PreK-8 classroom*	3 S.H.
EDUC	2640	*Language Arts in Education*	3 S.H.
SPED	2800	*Strategies in Reading Instruction*	3 S.H.
EDUC	2870	*Social Studies and Writing in Education*	3 S.H.
EDUC	2970	*Assessment of Students with Disabilities*	3 S.H.
EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDU	2930	*The Arts II: Integration*	1 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.

Middle School Education (5-8)

Graduates of the Middle School Education program are well prepared to provide classroom instruction to children with various learning needs in grades 5-8. They develop effective learning strategies in the teaching of the subject matter of the license for which they will be endorsed. The Massachusetts Tests for Educator Licensure required for this program are Communication and Literacy and the content area test for the license sought.

Candidates have a choice of six (6) licensure tracks: Humanities, Mathematics/Science, History, Mathematics, English or General Science. Required courses—46 credits.

The plan of study is as follows:

Humanities or Mathematics/Science Licensure Tracks

Required Courses

SPED	2210	*Diversity and Disabilities (3 hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Education (15 hr. p.p.)*	3 S.H.
EDUC	3070	*Middle School Concept (15 hr. p.p.)*	3 S.H.
ENGL	4700	*Teaching Reading and Writing in Middle and Secondary Schools*	3 S.H.
SPED	3800	*Secondary Programs for Adolescents with Disabilities*	3 S.H.

Choose one of the arts choices

EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDUC	2930	*The Arts III: Integration*	1 S.H.

For the humanities major:

ENGL	4850	*Special Meth in Teach English. (25 hr. p.p.)*	3 S.H.
HIST	4850	*Special Meth in Teach History (25 hr. p.p.)*	3 S.H.

For the Mathematics/Science Major:

MATH	4850	*Special Meth in Teach Math. (25 hr. p.p.)*	3 S.H.
BIOL	4850	*Special Meth in Teach Science (25 hr. p.p.)*	3 S.H.

Onsite Immersion Semester (Senior Year) courses taken concurrently

SPED	3720	*Classroom Behavior Support*	3 S.H.
EDUC	3300	*Curriculum and Instruction in MS*	3 S.H.
EDUC	3740	*On-site Immersion (150 hrs)*	3 S.H.

Student teaching and course taken concurrently

EDUC	4885	*Practicum in Middle School Ed I*	4.5 S.H.
EDUC	4886	*Practicum in Middle School Ed II*	4.5 S.H.
EDUC	4550	*Collaboration & Communities*	3 S.H.
		Total	**46 S.H.**

English, History, Mathematics, or General Science Licensure Tracks

SPED	2210	*Diversity and Disabilities (3 hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Education (15 hr. p.p.)*	3 S.H.
EDUC	3070	*Middle School Concept (15 hr. p.p.)*	3 S.H.
ENGL	4700	*Teaching Reading and Writing in Middle and Secondary Schools*	3 S.H.
SPED	3800	*Secondary Programs for Adolescents with Disabilities*	3 S.H.
BIOL/ENGL/HIST/MATH HIST	4850	*Special Methods in Teaching Biology/English/History/Mathematics*	3 S.H.

Choose one of the arts choices

EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDUC	2930	*The Arts III: Integration*	1 S.H.

Onsite Immersion Semester (Senior Year) courses taken concurrently

SPED	3270	*Classroom Behavior Support*	3 S.H.
EDUC	3300	*Curriculum and Instruction in Middle School*	3 S.H.
EDUC	3740	*On-site Immersion (150 hrs.)*	3 S.H.

Student teaching and course taken concurrently

EDUC	4885	*Practicum in Middle School Education I*	4.5 S.H.
EDUC	4886	*Practicum in Middle School Education II*	4.5 S.H.
EDUC	4550	*Collaboration & Communities*	3 S.H.
		Total	**42 S.H.**

Requirements for the Minor in Middle School Education

This minor consists of 18 hours of coursework. This total includes 12 hours of core courses and six hours of electives.

Required Courses			**9 S.H.**
SPED	2210	*Understanding Diversity and Disabilities (core)*	3 S.H.
EDUC	2300	*Foundations of Inclusive Education (core)*	3 S.H.
EDUC	3070	*Middle School Concept*	3 S.H.
Electives (choose two)			**6 S.H**
EDUC	3800	*Secondary Programs for Adolescents with Special Needs*	3 S.H.
ENGL	4700	*Teaching Reading and Writing in Middle & Sec. Schools*	3 S.H.
EDUC	2970	*Assessment for Instruction*	3 S.H.
EDUC	2910	*The Arts I: Inspiration*	1 S.H.
EDUC	2920	*The Arts II: Imagination*	1 S.H.
EDU	2930	*The Arts II: Integration*	1 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.
EDUC	3300	*Curriculum and Instruction in the Middle School*	3 S.H.

Teacher of Students with Severe Disabilities—All Levels (without Elementary License)

The Education Department of Fitchburg State University fully recognizes and embraces the diversity and challenges that teachers face in today's public and private schools. Our comprehensive program of study in the area of Severe Disabilities is one that deliberately integrates and celebrates these challenges by providing an inclusive model for teacher preparation. Each course provides research-based methods to assess students' needs in order to differentiate instruction. Techniques and strategies that address the needs of learners with Severe Disabilities in the inclusion classroom are emphasized. Courses have been specifically designed to provide teacher candidates with content and strategies to be knowledgeable, skillful, ethical, and caring educators in the 21st century.

SPED	2210	*Understanding Diversity and Disabilities (3 hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Inclusive Education (15 hr. p.p.)*	3 S.H.
EDUC	2910	*The Arts I: Inspiration (Module 1)* 1 S.H **or**	
EDUC	2920	*The Arts II: Imagination (Module 2)*	1 S.H.
SPED	3401	*Language Development and Speech (15 hr. p.p.)*	3 S.H.
EDUC	2630	*Literacy in the PreK–8 Classroom (15 hr. p.p.)*	3 S.H.
EDUC	2640	*Language Arts in Education (15 hr. p.p.)*	3 S.H.
SPED	3400	*Teaching Math to Students with/without Disabilities*	3 S.H.
SPED	2970	*Assessment of Students with Disabilities*	3 S.H.
SPED	2950	*Fostering the Development of Students with Emotional Disturbances and Autism Spectrum Disorders*	2 S.H.
SPED	2510	*Students With Physical and Health Care Needs (15 hr. p.p.)*	3 S.H.

Onsite Immersion Semester (Senior Year)

Courses taken concurrently

SPED	3740	*On-site Immersion Field Experience*	3 S.H.
SPED	3510	*Behavior Analysis and Support for Students with Severe Disabilities*	3 S.H.
SPED	3520	*Program Development in the Functional Domains*	3 S.H.

Student Teaching (Senior year)

Courses taken concurrently

SPED	3840/3845	*Practicum I and II for Teaching Students with Severe Disabilities*	9 S.H.
EDUC	4550	*Collaboration, Co-teaching, Building Communities, & Working with Families*	3 S.H.

Teacher candidates address both the speaking and listening requirements through the extensive training and feedback they receive during the Onsite Immersion Field Experience and the two practica.

Special Education/Elementary Major Moderate Disabilities PreK-8

The Special Education program embraces an inclusive philosophy that emphasizes the similarities of all children and young adults. The faculty believes that to work effectively with children who have disabilities, one must be able to work with all children. Also, special educators must work closely with general education teachers. Therefore the program offers an elementary pre-practicum and practicum experience. This program prepares graduates to be teachers of Students with Moderate Disabilities (PreK-8) in both general classroom and special education settings. Graduates of the program are eligible for both elementary and special education licensure. The Massachusetts Tests for Educator Licensure required for this program are Communication and Literacy, General Curriculum and Foundations of Reading.

The plan of study is as follows:

SPED	2210	*Diversity and Disabilities (3 hr. p.p.)*	3 S.H.
EDUC	2300	*Foundations of Education (15 hr. p.p.)*	3 S.H.
SPED	3401	*Language Development and Speech (15 hr. p.p.)*	3 S.H.
EDUC	2630	*Literacy PreK-8 Classrooms (15 hr. p.p.)*	3 S.H.
EDUC	2640	*Language Arts in Education (15 pp)*	3 S.H.
SPED	2800	*Strategies in Reading Instruction*	3 S.H.
SPED	2880	*Science and Social Studies for Students with/without disabilities (15 hr. p.p.)*	3 S.H.
EDUC	2910	*The Arts I* **or**	1 S.H.
EDUC	2920	*The Arts II*	1 S.H.
SPED	2950	*Students with Emotional and ASD*	2 S.H.
SPED	2970	*Assessment of Students with Disabilities*	3 S.H.
		Onsite Immersion Semester (Senior Year) courses taken concurrently	
SPED	3400	*Teaching Math with/without Disabilities*	3 S.H.
SPED	3720	*Classroom Behavior Support*	3 S.H.
EDUC	3740	*On-site Immersion Field Experience (150 hrs)*	3 S.H.
		Student Teaching (Senior Year) courses taken concurrently	
EDUC	4550	*Collaboration & Communities*	3 S.H.
SPED	3860	*Practicum: Elementary**	4.5 S.H.
SPED	3870	*Practicum: SPED PreK-8**	4.5 S.H.
		Total	**48 S.H.**

Teacher candidates address both the speaking and listening requirements through the extensive training and feedback during the pre-practicum and practicum experience.

Liberal Arts and Science Requirements

GEOG	1000	*Introduction to Geography*
PSY	1100	*General Psychology* **or**
PSY	2200	*Human Growth and Development*

Teacher candidates must meet the Constitution Requirement by completing: POLS 1000 or POLS 1500 or HIST 1400 or HIST 1500.

An Interdisciplinary major is also required for licensure for Moderate Disabilities (PreK-8) and for Severe Disabilities.

Requirements for the Minor in Special Education

The minor requires 18 semester hours of work. This total includes six hours of core courses and 12 hours of electives. Students interested in pursuing graduate work toward licensure in any area of Special Education are encouraged to work closely with a Special Education graduate faculty advisor to select courses.

Two Required Courses

SPED	2210	*Understanding Diversity and Disabilities (core)*	3 S.H.
EDUC	2300	*Foundations of Inclusive Education (core)*	3 S.H.

Electives

Choose 4 courses (12 semester hours) from the list below:

EDUC	2910	*The Arts I: Inspiration (Module 1)*	1 S.H.
EDUC	2920	*The Arts II: Imagination (Module 2)*	1 S.H.
EDUC	2930	*The Arts III: Integration (Module 3)*	1 S.H.
SPED	3401	*Language Development and Speech (15 hr. p.p.)*	3 S.H.
EDUC	2630	*Literacy in the Prek – 8 Classroom (15 hr. p.p.)*	3 S.H.
SPED	3401	*Language Development and Speech (15 hr. p.p.)*	3 S.H.
SPED	2880	*Science & Social Studies for Students with/without Disabilities*	3 S.H.
SPED	2800	*Strategies in Reading Instruction and the Assessment of Reading*	3 S.H.
SPED	3400	*Teaching Math to Students with/without Disabilities*	3 S.H.
SPED	2950	*Fostering Development of Students with Emotional Disturbances and Autism Spectrum Disorders ASD*	2 S.H.
SPED	2970	*Assessment of Students with Moderate Disabilities*	3 S.H.
SPED	3720	*Classroom Management & Behavior Support (with field component)*	3 S.H.
ENGL	2300	*Literature and Disability*	3 S.H.
SPED	3575	*Strategies for 5-12 Students with Disabilities*	3 S.H.

Secondary Education (8–12)

Clinical Professors

Laura Baker
Chola Chisunka
Patricia Smith
Teresa Thomas
Christopher Cratsley
Nancy Kelly
Mark Snyder
Wayne Whitfield

Objectives for the Program in Secondary Education

A Secondary Education program is offered for students seeking initial teaching certification in the following disciplines:

- Biology (8-12)
- Earth Science (5-12)
- English (8-12)
- History (8-12)
- Mathematics (8-12)
- Technology Education (5-12)

Requirements for Initial Teacher Licensure

For information about undergraduate requirements in teacher preparation, see the section titled: Teacher Preparation Programs (Undergraduate).

The secondary teacher licensure programs are housed in the academic departments of Biology, English, History, Mathematics and Technology Education. The programs in Biology, English, History and Mathematics programs share a core of education courses:

BIOL 2860/ENGL 2860/HIST 2860/MATH 2860		*Introduction to Secondary School Teaching*
ENGL	4700	*Teaching Reading and Writing in Middle and Secondary Schools*
BIOL	4850	*Special Methods in Teaching in Biology*
ENGL	4850	*Special Methods in Teaching in English*
HIST	4850	*Special Methods in Teaching in History*
MATH	4850	*Special Methods in Teaching in Math*
BIOL 4860/ENGL 4860/HIST 4860/MATH 4860		*Practicum in Secondary School I*
BIOL 4870/ENGL 4870/HIST 4870/MATH 4870		*Practicum in Secondary School II*
SPED	3800	*Secondary Programs for Adolescents with Disabilities (14-22)*

See the listing for each academic department for additional requirements for each program.

Technology Education

Phase I

LA&S Requirements 21 S.H.

ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
EXSS	1000	*Health & Fitness*
ITEC	1700	*Evolution of Industrial Technology*
ITEC	2000	*Women in Science and Technology* **or**
ITEC	2700	*Man Technology Society*
MATH	1300	*Pre-Calculus*
PSY	1100	*General Psychology* **or**
PSY	2200	*Human Growth and Development*

Initial Licensure Common Technical Core 36 S.H.

ITEC	1710	*Technical Analysis*
ITEC	1720	*Computers in Industrial Technology*
ITEC	2010	*Introduction to Technology Education*

Manufacturing Cluster

ITEC	1200	*Engineering Design Fabrication Systems I*
ITEC	1300	*Engineering Design Fabrication Systems II*

Communications Cluster

ITEC	1400	*Technical Drawing*
ITEC	2410	*CAD*
ITEC	4000	*Communications in Technology Education*

Construction Cluster

ITEC	1320	*Construction Systems I*
ITEC	2310	*Construction Systems II*

Power, Energy, and Transportation Cluster

ITEC	1000	*Electronics Systems and Concepts*
ITEC	1100	*Electronics I*
ITEC	1600	*Energy Systems I*

Initial MTEL Communication & Literacy Skills Tests along with Phase I should be complete before starting Phase II.

Phase II

Requirements

ITEC	2730	*Automated Manufacturing & Robotics I*
PHIL	2000	*Philosophy of Education or*
PHIL	2600	*Philosophy of Human Nature*
PHYS	2400	*Physics II*
SPCH	1000	*Introduction to Speech*

Professional Sequence

ITEC	3800	*Methods in Teaching Technology Education*
ITEC	3810	*Curriculum Development in Technology Education*

Advanced Technical Elective

Choose One—Level 2000 or higher, such as:

ITEC	3110	*Digital Electronics*
ITEC	3340	*Construction Systems III*
ITEC	3410	*Drafting Commercial Structures*
ITEC	3730	*Automated Manufacturing II*

An additional 30 semester hours of Industrial Technology and LA&S electives are required to complete the program.

Initial MTEL Technology Content Test along with Phase II must be complete before starting Phase III.

Phase III

ITEC	4862	*Practicum I in Technology Education*
ITEC	4864	*Practicum II in Technology Education*

Post-Baccalaureate Undergraduate Licensure Endorsement Certificate

This certificate program will be available to Fitchburg State undergraduates who have been awarded degrees within the last calendar year, have successfully completed all the degree requirements of the undergraduate education program in which they seek licensure including student teaching and have successfully passed all Massachusetts Department of Elementary and Secondary Education tests required for initial licensure. Completion of this certificate makes a candidate eligible for endorsement and does not lead to a second bachelor's degree. The dean of Education will review individuals who receive this certificate for endorsement. If these students are endorsed, they will receive the official The National Council for Accreditation of Teacher Education/ State endorsement statement related to their individual initial licensure on their official transcript.

Theater Track/English

Chairperson
Patrice Gray

Professors
Richard McElvain
Kelly Morgan

Associate Professor
Cap Corduan (Industrial Tech. Dept.)

Objectives for the Program in Theater Track

The Theater Track serves all students by offering courses that study the history and literature of theater as well as performing arts skills in acting, directing and stagecraft production. Opportunities to perform annual productions are also available. An interdisciplinary major or minor is also available. See minor in Theater.

Theater Program

The Theater program is the combined Theater (English Department) and Technical Theater (Industrial Technology Department) production arm of the university. This includes acting, directing, design, and technical areas.

Major in English/Theater

The courses required in the major are described under the English major.

Major in Technical Theater

The courses required for Technical Theater are described under the Industrial Technology major.

The Minor in Theater

The Theater minor requires a minimum of 18 semester hours.

Requirements

THEA	1700	*Stage Movement*	3 cr.
THEA	2730	*History of Theater*	3 cr.
THEA	2700	*Acting*	3 cr.
ENGL	3020	*Modern Drama*	3 cr.

Two electives (select from)* **3 cr.**

ENGL	3000	*Word Drama*
ENGL	3010	*American Drama*
ENGL	4020	*Shakespeare's Drama: Text & Performance* **or**
ENGL	4030	*Interpreting Shakespeare's Works*
SPCH	1700	*Voice and Articulation*
THEA	2740	*History of Theater II*
THEA	3400	*Advanced Stage Movement*

**One course must be 3000 or 4000 level.*

Women's Studies

Chairpersons	**Coordinators**
Patrice Gray	*Nancy Kelly*
Margot Kempers	*Susan Williams*
Paul Weizer	

Objectives for the Women's Studies Program

The program in Women's Studies provides multicultural and interdisciplinary courses which examine women's roles, history, and issues. These courses satisfy requirements in the Liberal Arts and Sciences program and also can be counted toward an interdepartmental minor.

Requirements for the Minor in Women's Studies

The minor in Women's Studies includes the Introduction to Women's Studies and five other courses including independent study, selected from the following courses:*

Required Course

IDIS	1000	*Introduction to Women's Studies*

Electives

Choose five from the following:

IDIS	1100	*Women in Latin America*
PSY	2250	*Psychology of Women*
IDIS	2340	*Contemporary Issues in Women's Health*
ITAL	3300	*Women in Italy*
HIST	2450	*History of U.S. Women to 1870*
HIST	2500	*History of U.S. Women from 1870 to the Present*
ENG	3300	*Women and Literature*
HIST	3450	*Women in European History since 1700*
ART	3700	*Women, Art, and Society*
SOC	3770	*Women in American Society*
MUSC	3900	*Women, Music and Society*
IDIS	4903	*Independent Study in Women's Studies*

**Note: Each of the electives for this minor may have specific prerequisites.*

UNDERGRADUATE EVENING PROGRAMS

The Office of Graduate and Continuing Education provides undergraduate degree programs in selected fields along with a variety of life-long learning opportunities and an array of liberal arts courses open to degree-seeking and non-degree students. With its commitment to affordable and accessible high-quality education, GCE offers its undergraduate courses on and off campus locations and online. Courses are offered at times, including summer and winter sessions, convenient to non-traditional and traditional-age students.

Administration

Graduate and Continuing Education is administered by the Office of Academic Affairs. Degree specializations originate in the appropriate academic department of the university. Where there are no corresponding academic departments, committees perform the appropriate functions. GCE is responsible, in cooperation with the appropriate academic departments, for:

- Maintaining the quality of degree programs
- Scheduling courses
- Advising students

Faculty

Courses offered through Graduate and Continuing Education are taught by Fitchburg State University faculty and other qualified individuals brought into the program as adjunct faculty.

Degree Majors, Minors, and Certificate Programs

Bachelor's Degrees

Bachelor of science in Business Administration
    Accounting
    Finance
    Management
    Marketing

Bachelor of science in Computer Science (currently not accepting new students)

Bachelor of science in Computer Information Systems (currently not accepting new students)

Bachelor of science in Criminal Justice

Bachelor of arts/bachelor of science in Interdisciplinary Studies

Bachelor of science in Occupational/Vocational Education

Minors

Business Administration

Computer Information System

Computer Science

Criminal Justice

English

Psychology

Certificate Programs

Applied Programming
Business Administration
Computer Hardware
Computer Use and Applications
Database Systems
High Level Languages
Java Programming
Microsoft Foundation Classes
Office Administration
Plastics Technology (Offered off-campus at NYPRO Inc. in Clinton and online)
Software Engineering
Web Development

Approval Programs

Vocational Technical Teacher Approval Program

Bachelor of science in Business Administration

Chairperson	Program Manager
Joseph McAloon	*Diane Caggiano*

Program Objectives

Students who graduate from the Business Administration program are equipped with a knowledge of business theories, policies, and procedures and are prepared to take a responsible position within the world of business. The program refines a student's commitment to personal values and moral excellence as well as professional competence.

Program of Study

The degree offered by the Business Administration Department is the bachelor of science degree. The curriculum is based in the Liberal Arts, coupled with a sufficient mix of professional courses and a variety of practical business experiences.

The Bachelor of Science in Business Administration requires completion of the 48-credit liberal arts and sciences (LAS) core, the specific requirements for the major, minor, and/or concentration that is chosen, several additional LAS courses required for the major, and elective courses, for a minimum of 120 credits.

Bachelor of science in Business Administration Concentrations

- Accounting
- Finance (only offered at night)
- Management
- Marketing

Liberal Arts and Sciences Requirements (43-54 S.H.)

BSAD	1700	*Introduction to Computer Information Systems for Business*
ENGL	1100	*Writing I*
ENGL	1200	*Writing II*
EXSS	1000	*Health and Fitness*
MATH	1800	*Business Statistics*
MATH	2200	*Calculus for Business*
ECON	1100	*Principles of Economics (Macro)*
ECON	1200	*Principles of Economics (Micro)*
SPCH	1000	*Introduction to Speech Communications*
		Additional Liberal Arts and Sciences requirements

Core Curriculum (21 S.H.)

For All Business Administration Concentrations:

BSAD	2010	*Introduction to Financial Reporting*
BSAD	2020	*Introduction to Managerial Accounting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3400	*Basic Finance*
BSAD	3500	*Business Law I*
BSAD	4890	*Business Policy and Strategy*

Specializations for the Major in Business Administration

Accounting (42 S.H.)

Required Courses

BSAD	3010	*Financial Reporting Theory and Practice I*	
BSAD	3020	*Financial Reporting Theory and Practice II*	
BSAD	3120	*Cost Accounting*	
BSAD	4010	*Financial Reporting Theory and Practice III*	
BSAD	4110	*International Accounting and Taxation*	
BSAD	4120	*Individual Taxation*	
BSAD	4140	*Auditing*	
BSAD	4500	*Business Law II*	
		Electives	*15 S.H.*

Directed Advanced Elective

Choose any one of the following:

BSAD	4100	*Consolidation and Mergers*
BSAD	4130	*Corporate, Estate, and Gift Taxation*
BSAD	4160	*Not-for-Profit Accounting*

Finance (39 S.H.)

Required Courses

BSAD	3410	*Investments*	
BSAD	3460	*Real Estate Investment and Management*	
BSAD	4230	*Business Fluctuations and Forecasting*	
BSAD	4400	*Financial Management of Corporations*	
BSAD	4500	*Business Law II*	
BSAD	4880	*International Business Management*	
BSAD	5000	*Topics in Business*	
ECON	2400	*Money and Banking*	
		Electives	*15 S.H.*

Management (39 S.H.)

Required Courses

BSAD	3210	*Human Resources Management*	
BSAD	3220	*Production Management*	
BSAD	4200	*Organizational Behavior and Theory*	
BSAD	4210	*Social and Political Environment of Business*	
BSAD	4230	*Business Fluctuations and Forecasting*	
BSAD	4880	*International Business Management*	
		Electives	*21 S.H.*

Marketing (39 S.H.)

Required Courses

BSAD	3310	*Consumer Behavior*	
BSAD	3320	*Market Research*	
BSAD	3330	*Advertising*	
BSAD	4880	*International Business Management*	

Choose any three of the following:

BSAD	3340	*Small Business Management*	
BSAD	3350	*Total Quality Management*	
BSAD	4300	*Sales Management*	
BSAD	4310	*Retail Marketing*	
BSAD	4320	*Industrial Marketing*	
BSAD	4330	*International Marketing*	
BSAD	4340	*Developing Marketing Strategies*	
		Electives	*18 S.H.*
		Total for degree	**120 S.H.**

Requirements for the Minor in Business Administration

The minor in Business Administration consists of 18 credits. The following four courses are required:

BSAD	2010	*Introduction to Financial Reporting*
BSAD	3200	*Principles of Management*
BSAD	3300	*Fundamentals of Marketing*
BSAD	3500	*Business Law I*

Two business electives must also be taken. Two of the six required courses may be transferred from another university. Students minoring in Business Administration may take a maximum of two upper-level courses. These courses must be taken at Fitchburg State University and they must be approved by the department chairperson.

Bachelor of science in Computer Science

Chairperson	Program Manager
Frits Lander	*TBA*

The B.S. in Computer Science degree program is currently under review and is not accepting new students

Program Objectives

The Computer Science program offers the opportunity for students to develop a unique blend of knowledge and skills in the areas of computer software and computer hardware. The program provides sufficient theoretical background for continued learning. It also provides practical skills to prepare the students for professional careers in the rapidly changing field of computer science. Students develop good communication skills and the ability for teamwork and leadership roles in their professional careers.

The Bachelor of Science in Computer Science requires completion of the 48-credit liberal arts and sciences (LAS) core, the specific requirements for the major, several additional LAS courses required for the major, and elective courses, for a minimum of 120 credits.

Program of Study

Liberal Arts and Sciences Requirements

ENGL	1100	*Writing I*	3 S.H.
ENGL	1200	*Writing II*	3 S.H.
EXSS	1000	*Health & Fitness*	3 S.H.
PHYS	2300	*General Physics I*	4 S.H.
PHYS	2400	*General Physics II*	4 S.H.
+MATH	1300	*Precalculus*	3 S.H.
MATH	1800	*Business Statistics*	3 S.H.
MATH	2300	*Calculus I*	4 S.H.
MATH	2400	*Calculus II*	4 S.H.
MATH	2600	*Linear Algebra*	3 S.H.
		One additional Math at the 3000 level	
		Additional Liberal Arts and Science Requirements	27 S.H.
		Subtotal for Liberal Arts and Science	64 S.H.

Required for Major

CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC	1600	*Introduction to Electronics*	4 S.H.
CSC	1650	*Digital Electronics*	4 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	2600	*Computer Organization*	4 S.H.
CSC	3100	*Operating Systems*	3 S.H.
CSC	3200	*Programming Languages*	3 S.H.
CSC	3600	*Microprocessors*	4 S.H.
CSC	3700	*Algorithms & Data Structures*	3 S.H.
*CSC	4400	*Software Engineering*	3 S.H.
		Five additional CS electives at or above 3000 level	15 S.H.
		Subtotal for Major	**52 S.H.**
		Free Electives from any area	4 S.H.
		Total for degree	**120 S.H.**

+ Pending placement exam results

* Course used to satisfy junior/senior writing, and speaking and listening requirements. Computer literacy requirement is satisfied by CS core.

Bachelor of science in Computer Information Systems

Chairperson	**Program Manager**
Frits Lander	*TBA*

The B.S. in Computer Information Systems degree program is currently under review and is not accepting new students

Program Objectives

The Computer Information Systems program offers the opportunity for students to develop knowledge and skills in analysis and design of business information systems, database development, software development, and networking. This program prepares the students for professional careers in the rapidly changing field of computer information systems. Students develop good communication skills and the ability for teamwork and leadership roles in their professional careers.

The Bachelor of Science in Computer Information Systems requires completion of the 48-credit liberal arts and sciences (LAS) core, the specific requirements for the major, several additional LAS courses required for the major, and elective courses, for a minimum of 120 credits.

All CIS majors are encouraged to register for a minor in Business Administration.

Program of Study

Liberal Arts and Sciences Requirements

ENGL	1100	*Writing I*	3 S.H.
ENGL	1200	*Writing II*	3 S.H.
EXSS	1000	*Health & Fitness*	3 S.H.
CSC	1000	*Introduction to Programming*	3 S.H.
CSC	1400	*Computer Information Systems*	3 S.H.
CSC/MATH	1900	*Discrete Mathematics*	3 S.H.
ECON	1100	*Macroeconomics*	3 S.H.
ECON	1200	*Microeconomics*	3 S.H.
+MATH	1250	*Introduction to Functions*	3 S.H.
MATH	1800	*Business Statistics*	3 S.H.
MATH	2200	*Calculus for Business*	3 S.H.
		Additional Liberal Arts and Science Requirements	28 S.H.
		Subtotal for Liberal Arts and Science	61 S.H.

Required for Major

BSAD	2010	*Introduction to Financial Reporting*	3 S.H.
BSAD	2020	*Introduction to Managerial Accounting*	3 S.H.
BSAD	3200	*Principles of Management*	3 S.H.
BSAD	3400	*Basic Finance*	3 S.H.
CSC/BSAD	3710	*Systems Analysis Methods*	3 S.H.
CSC/*BSAD	4700	*Systems Design & Implementation*	3 S.H.
CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC	2400	*Database Systems*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	2700	*Business Programming*	3 S.H.
CSC	3400	*Data Communications and Networking*	3 S.H.
CSC	3450	*Local Area Networks*	3 S.H.
		Three additional CS electives at or above 3000 level	15 S.H.
		Subtotal for Major	48 S.H.
		Free Electives from any area	11 S.H.
		Total for degree	**120 S.H.**

* Course used to satisfy junior/senior writing, and speaking and listening requirements. Computer literacy requirement is satisfied by CS core.

+ Pending Placement Exam results.

Bachelor of science in Criminal Justice

Chairperson	**Coordinator**	
Randall Grometstein	*Randall Grometstein*	
Professor	**Associate Professors**	**Assistant Professors**
Richard Wiebe	*Deon Brock*	*Elizabeth Walsh*
	Randall Grometstein	*David Weiss*

Objectives for the Major in Criminal Justice

The Criminal Justice Major provides students with courses which lead to a Bachelor of Science Degree and provides a foundation for employment in the Criminal Justice field and graduate work. The program is PCIPP approved.

Requirements for the Criminal Justice Major

The Criminal Justice Program requires every major to complete 45 credits of CJ requirements and a minimum of 120 credits for the degree. These include core CJ required courses (24 credits), additional CJ required courses (6 credits) and CJ electives (15 credits). Courses are also required in the Liberal Arts and Sciences requirements (12 credits).

Core Requirements (24 credits)

CJ	2000	*Introduction to Criminal Justice*
CJ	2050	*Principles and Practice of Law Enforcement**
CJ	2650	*Correctional Theory and Practice**
CJ	2651	*Ethics in Criminal Justice**
CJ	3140	*Criminal Justice Data Analysis**
CJ	3750	*Colloquium**
CJ/POLS	2270	*Introduction to Legal Process*
SOC	2750	*Criminology*

Additional required CJ courses

CJ	3130	*Criminal Justice Research Methods**
CJ	3242	*Psychology of Crime**

And 15 credits of elective credits, chosen in consultation with their advisor, from the list of courses that follow:

Criminal Justice

CJ	2450	*Women in Criminal Justice**
CJ	2500	*Correctional Law**
CJ	2550	*Criminal Law**
CJ	2600	*Juvenile Justice**
CJ	3000	*Domestic Terrorism and Hate Crime**
CJ	3053	*Victimology**
CJ	3100	*Organized Crime and Youth Gangs**
CJ	3150	*Program Evaluation**
CJ	3200	*White Collar and Corporate Crime**
CJ	3215	*Community Policing**
CJ	3250	*Crime and Delinquency Prevention**
CJ	3300	*Community Based Corrections**
CJ	3333	*Crime in the Media**
CJ/ POLS	3510	*International Terrorism*
CJ	4970	*Internship in C J (6 credits in CJ electives)* **or**
CJ	4980	*Internship in CJ (6 credits in CJ electives/3 credits free electives)* **or**
CJ	4990	*Internship in CJ (6 credits in CJ electives/6 credits free electives)*

Human Services

HMSV	2400	*Crisis Intervention*
HMSV	3500	*Abuse and Neglect Within the Family*

Political Science

POLS	2550	*Sex, Race, and the Constitution*
POLS	2700	*Criminal Procedure: Rights of the Accused*
POLS	3500	*Constitutional Law*

Psychology

PSY	2350	*Abnormal Psychology*

Sociology

SOC	2760	*Juvenile Delinquency*
SOC	3500	*Law and Society*

Selected topics courses in these disciplines may be allowable with the permission of your advisor. Criminal Justice electives from other colleges may be accepted as electives if approved by the Criminal Justice Advisory Committee.

**Introduction to Criminal Justice is a pre-requisite for this course.*

LAS Requirements for the Criminal Justice Major

As part of their Liberal Arts and Sciences requirements, all students in the Criminal Justice Major must complete 12 required credits:

MATH	1700	*Applied Statistics*
POLS	1000	*United States Government* **or**
POLS	1100	*Introduction to Political Science*
PSY	1100	*General Psychology*
SOC	1100	*Introduction to Sociology*

Other Liberal Arts and Sciences courses are required as part of the degree. It is the student's responsibility to fulfill accurately and completely all Liberal Arts and Sciences and program requirements. Each student is assigned an academic advisor to assist with this process.

Requirements for the Minor in Criminal Justice

A minor in Criminal Justice is offered by the Department of Behavioral Sciences. Students will complete the Criminal Justice Minor as they fulfill the responsibilities of an academic major. There are nine semester hours of required courses and nine semester hours of electives. **Students are reminded that they may use no more than two of their major courses toward the minor.**

Required Courses **9 S.H.**

CJ	2000	*Introduction to Criminal Justice* **and**
SOC	2750	*Criminology* **and**
CJ/ POLS	2270	*Introduction to the Legal Process* **or**
SOC	3500	*Law and Society*

Note: If both CJ/POLS 2270 and SOC 3500 are taken, one counts as Required and the other as Elective.

Electives **9 S.H.**

CJ	2050	*Principles and Practices of Law Enforcement*
CJ/ POLS	2270	*Introduction to the Legal Process*
CJ	2450	*Women in Criminal Justice**
CJ	2500	*Correctional Law**
CJ	2550	*Criminal Law**
CJ	2600	*Juvenile Justice**
CJ	2650	*Correctional Theory and Practice*
CJ	2651	*Ethics in Criminal Justice*
CJ	3000	*Domestic Terrorism and Hate Crime**
CJ	3053	*Victimology**
CJ	3100	*Organized Crime and Youth Gangs**
CJ	3150	*Program Evaluation**
CJ	3200	*White Collar and Corporate Crime**
CJ	3215	*Community Policing**
CJ	3250	*Crime and Delinquency Prevention**
CJ	3242	*Psychology of Crime*
CJ	3300	*Community Based Corrections**
CJ	3333	*Crime in the Media**
CJ/ POLS	3510	*International Terrorism*
HMSV	2400	*Crisis Intervention*
HMSV	3500	*Abuse and Neglect Within the Family*
POLS	2550	*Sex, Race, and the Constitution*
POLS	2700	*Criminal Procedure: Rights of the Accused*
POLS	3500	*Constitutional Law*
PSY	2350	*Abnormal Psychology*
SOC	2760	*Juvenile Delinquency*
SOC	3500	*Law and Society*

Course descriptions can be found listed within the following disciplines: Criminal Justice, Human Services, Political Science, Psychology, and Sociology. Please refer to the course description section for more information.

** Introduction to Criminal Justice is a pre-requisite for this course.*

Bachelor of arts/ Bachelor of science in Interdisciplinary Studies

Program Manager
Beth Fullerton

Program Objectives

The bachelor of science and bachelor of arts in Interdisciplinary Studies degrees provide for uniquely designed, interdisciplinary majors, which allow students to work with faculty advisors to develop a plan of study that responds to personal educational and professional goals. The programs are particularly well-suited to adult learners. They provide the opportunity for part-time, individually-paced education which allows students to build their academic confidence and integrate their studies into their lives.

Additional objectives are:

- To enable students to explore multidisciplinary areas and to integrate them in a coherent and meaningful way through the creation of a senior Capstone project.
- To provide the opportunity for majors that combine the broadly-based Liberal Arts and Sciences courses with professional courses that are specifically chosen to create a minor and two areas of concentration.
- To provide the opportunity for a part-time, individually-paced education, which allows students to build their academic confidence and integrate their studies more easily into their lives.

Program of Study

The Interdisciplinary Studies degree is typically awarded as a bachelor of science. A bachelor of arts is awarded if the student includes foreign language study through the second year of college level work and concentrates their field of studies in the Liberal Arts and Sciences fields.

There are many possible combinations of course work available through this major, limited only by the breadth of courses offered through the day and evening divisions of the college. When creating a plan of study, a student must have a rationale for a thematic approach to their program.

Admission Standards and Criteria

There is a formal application procedure for students who choose to major in Interdisciplinary Studies. The purpose of the application is to:

- Set forth the student's academic and professional goals and demonstrate why they are best achieved through the Interdisciplinary Studies program
- Require students to outline their proposed program. Students must complete a minimum of 30 semester hours of course work after the program of study is approved by their Interdisciplinary Studies advisor and filed with the registrar.
- Stipulate any required independent exercise or internship

Requirements for Major

The Bachelor of Arts/Bachelor of Science in Interdisciplinary Studies requirements include:

- Liberal Arts & Sciences (LAS) requirements (48 semester hours); **and**
- A minimum of 36 semester hours of course work for the major in at least three different fields of study, with a college-approved minor within one of the three fields, and a minimum of nine semester hours in each of the other two fields of study (defined by disciplines, not departments); **and**
- A common core of three Liberal Arts and Sciences interdisciplinary courses (9 semester hours):
  - IDIS 1800 Global Issues; **and**
  - MUSC 2000 Commonwealth of the Arts or MUSC 2100 Commonwealth of the Ancient Arts; **and**
  - PHIL 1100 Logic or PHIL 2600 Philosophy of Human Nature or PHIL 3340 Contemporary Philosophy or PHIL 4430 Marxism; **and**
- A senior-year "Capstone" that will integrate the three clusters of the student's major curriculum. The student selects an assignment, such as a research project or internship, which significantly involves all three course disciplines in his or her individual program. Students write a capstone proposal that explains the goal of the project, the manner in which the project integrates the three disciplines of the individual's curriculum and the product to be submitted for review and grading at the conclusion of the project. This may take the form of an independent study or an internship (3-15 semester hours); **and**
- Electives (24 semester hours)—may be fewer, depending on number of credits taken in above categories.

Total for degree	**120 credits**

RN to Bachelor of Science in Nursing (ONLINE)

Chairperson	**Program Manager**
Linda McKay	*TBA*

The baccalaureate nursing program is accredited by the Commission on Collegiate Nursing Education (CCNE).

Program Description

The Online RN/BSN Program is designed to prepare professional nurses capable of meeting societal healthcare needs in a variety of settings. Legal, ethical and professional standards guide the students in the art and science of nursing. The graduate is prepared to respect diversity and social responsibility as well as to possess a commitment to excellence in the practice of holistic nursing.

Program Objectives

Through course work and clinical experience, graduates are prepared to:

- Synthesize knowledge from the liberal arts, sciences, and nursing as a foundation for safe, client-centered care.
- Integrate principles of communication in professional practice.

- Synthesize knowledge to provide holistic, culturally congruent care to diverse populations in a global environment.
- Incorporate current research and critical thinking in the management of client care.
- Incorporate ethical principles in professional practice.
- Comply with regulatory, legal and professional standards.
- Incorporate principles of management in professional practice.

Admissions Standards and Criteria

All students must successfully complete Writing I & Writing II; Biology 1200 Anatomy & Physiology I & Biology 1300 Anatomy & Physiology II; Chemistry 1100 Pre-Biochemistry & Chemistry 1200 Elements of Pre-Biochemistry and Organic Chemistry; Psychology 1100 General Psychology; & Sociology 1100 Introduction to Sociology in their freshman year. All science courses must be completed with a 2.5 or better by the end of the spring semester of their freshman year to progress to the sophomore year. The Accuplacer Mathematics Placement Exam or the required pre-college level mathematics readiness courses also must be completed prior to the sophomore year. Successful completion of these courses provides nursing majors with a solid foundation for their courses in nursing practice.

Program of Study

Liberal Arts and Science Credits

In order to obtain a BSN from Fitchburg State University, students are required to take 121 credits. A total of 59 Liberal Arts & Science credits must be fulfilled as part of the RN to BSN program. Most Associate Degree registered nurses are able to use transfer credits to fulfill many of these credits. Additionally, some of those credits may be fulfilled through College Level Examination Program (CLEP) testing, which can be arranged through Career Services at Fitchburg State University.

Art

Five courses; a minimum of 15 credits. One of these courses must have a global diversity non-western designation.

ENGL	1100	*Writing I*	3 S. H
ENGL	1200	*Writing II*	3 S.H.
		Art or Music	
		Literature	3 S.H.
		Elective	3 S.H.

Citizenship

Three courses; a minimum of 9 credits. Introduction to Sociology fulfills the global diversity designation.

PSY	1100	*General Psychology*	3 S.H.
SOC	1100	*Introduction to Sociology*	3 S.H.
		History	3 S.H.

Science, Math, Technology

Four courses; a minimum of 12 credits

MATH	1700	*Applied Statistics*	3 S.H.
BIOL	1200	*Anatomy & Physiology I*	4 S.H.
BIOL	1300	*Anatomy & Physiology II*	4 S.H.
BIOL	2700	*Survey of Microorganisms*	3 S.H.

Option C

Four courses chosen by the student, in consultation with their advisor; a minimum of 12 credits with a minimum of 6 credits at or above the 2000 level.

PSY	2200	*Human Growth & Development*	3 S.H.
		Electives	9 S.H.

Free Electives

Two or three courses; a minimum of 8 credits

		Electives	*8 or 9* S.H.

Nursing Credits

A total of 62 nursing credits must be fulfilled as part of the RN to BSN program. Associate degree registered nurses may transfer a maximum of 31 credits from their associate degree institution: diploma registered nurses may be awarded 31 nursing credits through the successful completion of the National League for Nursing (NLN) Acceleration Challenge Exam (ACE) II. The examinations are given in the areas of Care of the Adult Client, Care of the Client during Childbearing/Care of the Child, and Care of the Client with a Mental Disorder. A minimum score of 90 is required on each examination. If a score of 90 is not achieved in a specific area, the diploma registered nurse student will be required to take the appropriate Fitchburg State University nursing course from the list below:

NURS2910 Nursing Care of the Childbearing Family

NURS3910 Nursing Care of the Mentally Ill Client

NURS3920 Nursing Care of the Child

NURS3930 Nursing Care of the Adult

Further information about scheduling the NLN ACE II examinations for diploma registered nurses can be obtained by contacting the Department of Nursing at 978-665-3221 or by email at *cmcgrath@fitchburgstate.edu*.

All RN to BSN students are required to earn the remaining 31 nursing credits through Fitchburg State University.

These courses are:

NURS	3500	*Nursing Concepts I*	3 S.H.
NURS	3600	*Nursing Concepts II*	3S.H.
NURS	3650	*Portfolio Preparation*	1 S.H.
NURS	4000	*Nursing Research*	2 S.H.
NURS	4400	*Community Health Nursing*	5 S.H.
NURS	4500	*Nursing in a Global Community*	2 S.H.
NURS	4510	*End of Life Care* **or**	3 S.H.
NURS	4520	*Caring for Forensic Populations*	3 S.H.
NURS	4800	*Selected Practicum*	10 S.H.
NURS	4850	*Nursing Leadership & Management*	2 S.H.

Bachelor of science in Occupational/Vocational Education

Chairperson	**Program Manager**
James Alicata	*James Alicata*

Program Objectives

The university's undergraduate Occupational/Vocational Education degree program provides students with a blend of academic, vocational technical teaching, and elective learning opportunities. The program is committed to educating participants in comprehensive personnel development, which responds to specific occupational updating, professional growth and enhancement, and state-of-the-art information sharing for and with vocational technical educators. The program advocates a teaching approach, which brings about desired changes in the knowledge, skills, attitudes, and appreciation level of those in training.

The Bachelor of Science in Occupational/Vocational Education requires completion of the 48-credit liberal arts and sciences (LAS) core, the specific requirements for the major, several additional LAS courses required for the major, and elective courses, for a minimum of 120 credits.

Program of Study

The Occupational/Vocational Education degree is a bachelor of science degree. A significant component of the program is its availability to students at off-campus vocational technical school sites located across Massachusetts.

Job relevance and valid, reliable, vocational technical practice is attained through participatory planning and affiliation with industry, vocational technical school practitioners, professional associations and representatives of the university.

The program offers up to 12 credits in recognition of the work experiences of the participating students. Candidates may apply for the trade experience credit after completing eighty credits in the program.

Principle Sites where the Program is Offered

North

Greater Lowell Regional Vocational Technical High School
Whittier Regional Vocational Technical High School

Central

Assabet Valley Regional Vocational High School
Montachusett Regional Vocational Technical High School

South

Bristol-Plymouth Regional Vocational High School
Diman Regional Vocational Technical High School
Old Colony Regional Vocational Technical High School
Upper Cape Cod Regional Vocational Technical High School

Liberal Arts and Sciences Requirements

ENGL	1100	*Writing I*	
ENGL	1200	*Writing II*	
HIST	1400	*US History I* **or**	
HIST	1500	*US History II*	
EXSS	1000	*Health and Fitness*	
PHIL	1000	*Introduction to Western Philosophy* **or**	
PHIL	2000	*Philosophy of Education* **or**	
PHIL	2600	*Philosophy of Human Nature*	
PSY	1100	*General Psychology* **or**	
PSY	2200	*Human Growth and Development*	
PSY	2230	*Adolescent Psychology*	
SPCH	1000	*Introduction to Speech Communications*	
		Additional Liberal Arts and Sciences Requirements	48 S.H.

Vocational Education Requirements

OCED	2500	*Seminar for the Beginning Vocational Technical Education Teacher*	
OCED	2520	*Managing Student Behavior in a Healthy and Safe Environment*	
OCED	2530	*Teaching Methods for Vocational Technical Education Instructional Strategies*	
OCED	3510	*Teaching Methods for Vocational Technical Education – Educating and Assessing the Vocational Technical Education Learner*	
OCED	3517	*Fundamentals of Vocational Technical Education*	
OCED	3520	*Teaching Methods for Vocational Technical Education Using Research-Based Practices to Develop Effective Instructional Strategies*	
OCED	3530	*Developing and Implementing a Standards-Based Curriculum in Vocational Technical Education*	
OCED	3545	*Computerized Vocational Technical Curriculum Management*	
OCED	3546	*Integrated Vocational Technical and Academic Curriculum*	
OCED	3549	*Assessment Standards and Evaluation*	
OCED	3700	*Addressing the Needs of Students with Disabilities in Vocational Technical Education*	
OCED	4534	*Supervised Practicum in Vocational Education*	
		Trade Experience	0-12 S.H.
		Free Electives	0-24 S.H.
		Total for Degree	**120 S.H.**

Minor in English

Chairperson
Patrice Gray
Program Manager
Ian Williams

Program Objectives

The minor in English allows students of other disciplines to add a concentration in literature to their plan of study. The minor provides a wide range of courses in literature that enhance a student's critical thinking and appreciation for the masters of the written word.

Program of Study

Literature 18 credits

Required
ENGL 2999 *Approaches to English Studies* 3 cr.

ONE American Literature 3 cr.
ENGL 2000 *American Literature I: Exploration to the Civil War or*
ENGL 4200 *Romantic Movement in U.S. Literature or*
ENGL 2100 *American Literature II: Civil War to the Present*
or select from:
ENGL 2650 *Ethnic American Literature*
ENGL 3010 *American Drama*
ENGL 3220 *American Novel to 1950*

ONE British Literature 3 cr.
ENGL 2200 *British Literature I: Beowulf to Milton*
or select from:
ENGL 3030 *The Middle Ages*
ENGL 3120 *The Golden Age of English Renaissance*
ENGL 4010 *Chaucer and His World* **or**
ENGL 2210 *British Literature II: Pepys to Shelley*
or select from:
ENGL 4040 *Major English Writers of the 17th Century*
ENGL 4050 *The Novel in the 18th Century*
ENGL 4070 *Tradition and Revolution in British Literature: 1750–1800*
ENGL 4080 *British Romanticism* **or**
ENGL 2220 *British Literature III: Bronte to Rushdie*
or select from:
ENGL 3040 *British Literature since World War II*
ENGL 4090 *The 19th Century English Novel*
ENGL 4100 *Victorian Literature*
ENGL 4115 *British Modernism*

One literature elective with Global Diversity (GDA) **or** Global Diversity Non-Western (GDAN) designation 3 cr.

Two literature electives, 3000 or 4000 level 6 cr.

Minor in Psychology

Chairperson
Randall Grometstein

Program Objective

The minor in Psychology is particularly useful for students who wish to complement their chosen major with psychology courses relevant to their area of study, as well as for students who wish to gain a general knowledge of Psychology for application to their own lives.

Program of Study

The minor is designed to enable the student:

- To understand and evaluate psychological research and literature
- To choose courses which complement and relate to the major field of study
- To explore a particular interest in Psychology in depth

Accordingly, the following course organization is required:

Group I

Two courses are required:
PSY 1100 *General Psychology (prerequisite not counted towards minor)* **or**
PSY 2200 *Human Growth and Development*
PSY 2110 *Introduction to Research Methods (offered days)*

Group II

At least one course is to be taken from **each** of any three of the four areas (Basic Processes, Social/Clinical and Applied/Industrial and Organizational and Developmental) described under the psychology major in the section titled "Undergraduate Day Programs."

The remaining required courses may be selected from any one of the above mentioned areas or the general electives.

Total for Psychology Minor 18 S.H.

Certificate Programs in Business

Program Manager
Diane Caggiano

Certificate in Business (BSAD)

The certificate in Business allows students with or without a college degree to learn the fundamentals of business administration. The credit earned for the certificate can be applied to an undergraduate degree in Business or can serve as prerequisites for an Master's of Business Administration or Management Science program.

Requirements

BSAD	2010	*Introduction to Financial Reporting*	3 S.H.
BSAD	2020	*Introduction to Managerial Accounting*	3 S.H.
BSAD	3200	*Principles of Management*	3 S.H.
BSAD	3300	*Fundamentals of Marketing*	3 S.H.
BSAD	3400	*Basic Finance*	3 S.H.
BSAD	3500	*Business Law I*	3 S.H.
		Total for Certificate	**18 S.H.**

- At least three of the six courses must be completed at Fitchburg State University, including the last two courses
- Students must maintain a cumulative Grade Point Average of 2.0 or better

Office Administration Certificate (OFAD)

There are two phases of course work to attain the Certificate of Office Administration: Phase I can be completed independently of Phase II, but Phase II requires completion of Phase I.

Phase I Requirements

CSC	1050	*Internet Communications*	3 S.H.
CSC	1100	*Computer Applications*	3 S.H.
CSC	1200	*Introduction to Microsoft Windows and Word Processing*	3 S.H.
BSAD	3200	*Principles of Management*	3 S.H.
BSAD	2010	*Introduction to Financial Reporting*	3 S.H.
ENGL	1100	*Writing I*	3 S.H.
		Subtotal Phase I	18 S.H.

Phase II Requirements

CSC	1300	*Introduction to Spreadsheets and Databases*	3 S.H.
BSAD	2020	*Introduction to Managerial Accounting*	3 S.H.
BSAD	3210	*Human Resources Management*	3 S.H.
BSAD	3500	*Business Law I*	3 S.H.
		Subtotal Phase II	12 S.H.
		Total for Certificate	**30 S.H.**

- At least eight of the 10 courses must be completed at Fitchburg State University, including the last two courses
- Students must maintain a cumulative GPA of 2.0 or better

Certificate Programs in Computer Science

Program Manager
TBA

The certificate programs in Computer Science are designed for those who work with computers at their workplace and wish to sharpen their skills in specific areas. All the courses are part of the undergraduate curriculum. In order to earn a certificate, a minimum grade point average of 3.0 must be maintained within the program. At least half of the courses must be completed at Fitchburg State University. The department must approve all other courses.

Computer Use and Applications Certificate (CVAL)

This certificate provides basic computer literacy skills in the usage of Internet, e-mail and a popular operating system. In addition, word processing, spreadsheets, databases and presentation graphics are studied in detail.

CSC	1050	*Internet Communications*	3 S.H.
CSC	1100	*Computer Applications*	3 S.H.
CSC	1300	*Intro. to Spreadsheets and Databases*	3 S.H.
		Total for Certificate	**9 S.H.**

Web Development Certificate

The Internet plays a crucial role in the information revolution. It is used increasingly for personal and business communications, for commerce and exchange of ideas, and as a source of information and entertainment. This certificate provides the knowledge and skills needed to make the best use of what the Internet can offer and to create professional quality Web pages.

CSC	1050	*Internet Communications*	3 S.H.
CSC	1150	*Basics of Web Design*	3 S.H.
CSC	2150	*Advanced Web Design with Scripting*	3 S.H.
CSC	3250	*Advanced Topics in Web Development*	3 S.H.
		Total for Certificate	**12 S.H.**

Applied Programming Certificate I

This certificate introduces the programming languages that are used to program small and large businesses applications.

CSC	1000	*Intro. to Programming*	3 S.H.
CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC	2700	*Business Programming*	3 S.H.
		Total for Certificate	**12 S.H.**

High Level Languages Certificate

This certificate introduces the high level programming languages, at the assembler level, at the structured programming level and at the object-oriented programming level.

CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	3500	*Object Oriented Programming*	3 S.H.
		Total for Certificate	**15 S.H.**

Java Programming Certificate I

Java is a very elegant and popular object oriented programming language. In addition, it is platform independent and simplifies programming for the Internet, distributed networking, database access, embedded systems and client/server computing. This certificate provides for building programming skills from very basic to advanced web programming with Java.

CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	3050	*Web Programming with Java*	3 S.H.
		Total for Certificate	**15 S.H.**

Microsoft Foundation Classes Certificate

Microsoft Foundation Classes (MFC) provides the Application Programming Interface (API) for creating applications for Win32 platforms. This certificate provides the knowledge and skills needed for creating Windows applications.

Note: Completion of this certificate also allows awarding of the High Level Languages Certificate.

CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	3500	*Object Oriented Programming*	3 S.H.
CSC	3550	*Windows Programming with MFC*	3 S.H.
		Total for Certificate	**18 S.H.**

Database Systems Certificate

Database systems have evolved for managing large-scale information securely and efficiently. This certificate provides in-depth knowledge of how databases work, where they are used and how to program databases for information storage and retrieval.

CSC	1000	*Intro. to Programming*	3 S.H.
CSC	1400	*Computer Information Systems*	3 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2400	*Database Systems*	3 S.H.
CSC	4550	*Database Programming*	3 S.H.
		Total for Certificate	**15 S.H.**

Computer Hardware Certificate I

This certificate provides the theoretical background in computer hardware needed for more advanced topics such as data communications digital signal processing and embedded systems.

MATH	1300	*Precalculus*	3 S.H.
CSC	1600	*Intro. to Electronics*	4 S.H.
CSC	1650	*Digital Electronics*	4 S.H.
CSC	2600	*Computer Organization*	4 S.H.
CSC	3300	*Assembly Language*	3 S.H.
CSC	3600	*Microprocessors*	4 S.H.
		Total for Certificate	**22 S.H.**

Software Engineering Certificate I

Software engineering is one of the fastest growing professions as we move from the industrial revolution to the era of information technology revolution. The graduates of this certificate not only acquire good programming skills, but also understand the life cycle of a software product and how to design software for efficiency, maintenance and upgrades.

Note: Completion of this certificate also allows awarding of the High Level Languages Certificate.

CSC	1500	*Computer Science I*	3 S.H.
CSC	1550	*Computer Science II*	3 S.H.
CSC/ MATH	1900	*Discrete Mathematics*	3 S.H.
CSC	2560	*Systems Programming*	3 S.H.
CSC	3500	*Object Oriented Programming*	3 S.H.
CSC	3700	*Algorithms and Data Structures*	3 S.H.
CSC	4400	*Software Engineering*	3 S.H.
		Total for Certificate	**21 S.H.**

Certificate Program in Plastics Technology

Program Manager

Steven Therrien

The college offers a certificate program in Plastics Technology in cooperation with NYPRO, Inc. Located in Clinton, Mass., NYPRO is a world-class leader in injection molding. The program is open both to NYPRO employees and to any other student desiring to learn about injection molding and the manufacturing process involving conversion of raw material into finished parts and products. Course instructors, approved by Fitchburg State University, have extensive backgrounds in the plastics industry.

Requirements

Many of the courses include a laboratory component wherein students utilize injection molding machines. These activities are designed to enhance the learning experience.

Courses can be taken in the evenings each fall and spring semester in the modern classroom facilities of the NYPRO Institute in Clinton, Mass.* Students must maintain a cumulative GPA of 2.0 in order to earn the certificate.

***This program is also available online.**

Required Courses

PLAS	1010	*Blueprint Reading*	3 S.H.
PLAS	1030	*Industrial Electrical Maintenance*	3 S.H.
PLAS	2020	*Mold Design*	3 S.H.
PLAS	2040	*Hydraulics/Pneumatics*	3 S.H.
PLAS	2050	*Injection Molding*	3 S.H.
PLAS	2070	*Principles of Supervision*	3 S.H.
PLAS	3060	*Polymeric Materials, Design and Application*	3 S.H.
PLAS	3080	*Statistical Process Control*	3 S.H.
		Total for Certificate	**24 S.H.**

Approval Programs

Program Manager
James Alicata

Vocational Technical Teacher Approval Program

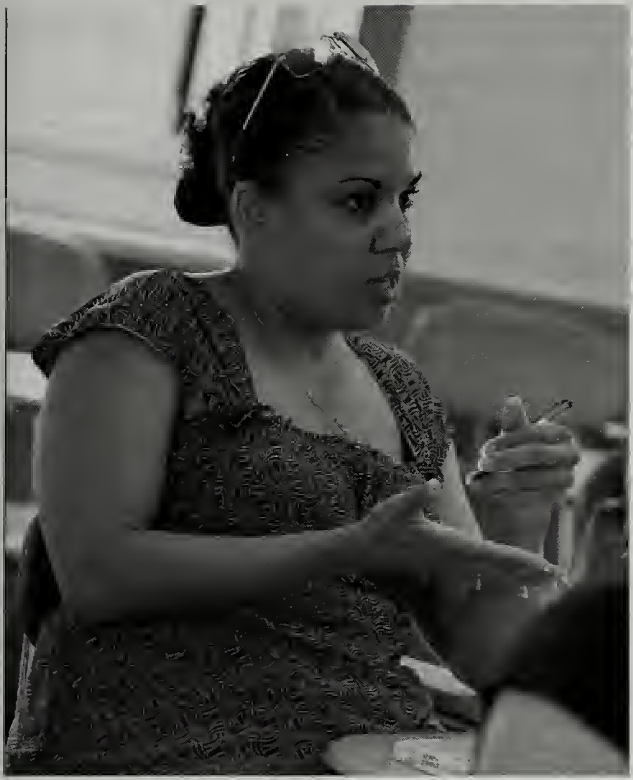
Candidates seeking credentials as approved vocational technical instructors must successfully complete a 36 semester hour competency based training program. This training program provides the candidate with the curriculum, organizational and delivery skills, along with the methodological and pedagogical competencies needed to become an effective vocational technical instructor or pursue a baccalaureate program.

These Courses are eligible for transfer into the BSE in Occupational/Vocational Education degree program.

Program of Study

OCED	2500	*Seminar for the Beginning Vocational Technical Education Teacher*	3 S.H.
OCED	2520	*Managing Student Behavior in a Healthy Safe Environment*	3 S.H.
OCED	2530	*Teaching Methods for Vocational Technical Education: Instructional Strategies*	3 S.H.
OCED	3510	*Teaching Methods for Vocational Technical Education—Educating and Assessing the Vocational Technical Education Learner*	3 S.H.
OCED	3520	*Teaching Methods for Vocational Technical Education—Using Research-based Practices to Develop Effective Instructional Strategies*	3 S.H.
OCED	3530	*Developing and Implementing a Standards-Based Curriculum in Vocational Technical Education.*	3 S.H.
OCED	3700	*Addressing the Needs of Students with Disabilities in Vocational Technical Education*	3 S.H.
		English courses: Six undergraduate credits in English to include three credits in English Composition 101, or a higher level and three additional credits in higher level English.	6 S.H.
		Math and Science courses: Twelve undergraduate credits in mathematics and science to include a minimum of three credits of college mathematics and a minimum of three credits of college science. The remaining six credits may be earned in college mathematics and/or science.	12 S.H.
		Total for Program	**39 S.H.**

These courses are eligible for transfer into the BSE in Occupational/Vocational Education degree program.



African-American Studies

Introduction to African-American Studies

AAST 1000 3 cr. 3 hr.

This introductory course defines the origins and scope of African-American studies. It provides a survey of the social, economic, religious, and cultural expressions of African-Americans as they followed the tangled path from Africa through slavery and emancipation, into the 20th century. I, L, C, IDIS, CTW

African-American History

(See HIST 2300) ▲

Modern African History

(See HIST 2930) ▲

African-American Women's History

(See HIST 2520) ▲

20th Century African-American Literature

(See ENGL 2670) ART ▲

Other Voices

(See ENGL 2650) ART ▲

Peoples and Cultures of Africa

(See SOC 2510) ▲

History of Jazz

(See MUSC 3800) ART ▲

African Jazz Dance

(See EXSS 1310) ▲

Independent Study in African-American Studies

AAST 4901-4903 1-3 cr. ▲

Directed Studies in African-American Studies

AAST 4975 1-3 cr. ▲

American Studies

Introduction to American Studies I

AMST 1800 3 cr. 3 hr. ▲

An introduction to the field of American Studies. The first semester begins with a case study of a particular historical moment, exploring issues of American society and identity by utilizing the variety of interdisciplinary critical lenses and approaches comprised by American Studies and engagement with scholarly perspectives on the period from a wide range of disciplines. ART. CTW

Introduction to American Studies II

AMST 1900 3 cr. 3 hr. ▲

The second half of the introduction to the field of American Studies, introduces the history of American Studies scholarship, focusing on both methodological approaches and significant scholarly works. Distinct periods in the development of American Studies, including the myth and symbol school, the rise of ethnic and multicultural studies, and the recent globalization of American Studies are covered. The course goals will be both to introduce students to the wide breadth of methods included in American Studies and to help them identify those areas of greatest individual interest for their subsequent coursework. ART. CTW

Prerequisite: AMST 1800 (can be waived with instructor's permission).

American Studies Seminar

AMST 4400 3 cr. 3 hr. ▲

The American Studies seminar is the culminating experience for American Studies majors. Each year it will engage with a different key theme in American history, culture, and identity such themes would include: war and peace; race, class, and gender; work; protest; the American Dream; community; tradition and change. Students will analyze texts from a variety of disciplines, including literature, historical documents, popular culture, film and other media, the visual arts, and material culture, in order to develop arguments about the theme and to engage with the interdisciplinary methodologies at the core of American Studies.

Prerequisite: AMST 1800, 1900; completion of at least 27 of the 36 required credits in American Studies (and all other required credits).

Art

Art Appreciation

ART 1100 3 cr. 3 hr. ▲ ●

The course presents a condensed survey of art history from prehistoric art to the present emphasizing the historical relationship of style and content. The Greek, Roman, Renaissance, Impressionist, and Modern art periods are emphasized. AOM, ART

Survey of Art Forms I

ART 1150 3 cr. 3 hr. ▲

A study of architecture, sculpture, and painting from ancient Egyptian times to the Renaissance in Europe. Asian and other non-Western or ethnographic cultures may be included. Emphasis is placed on understanding style in these various art forms.

Survey of Art Forms II

ART 1160 3 cr. 3 hr. ▲

This survey of significant styles in the architecture and painting of the Western World depicts art from the year 1400 to the present with emphasis upon the special nature of the visual experience. ART

Key to Course Offerings

Designates the course meets requirements for the following clusters.

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Introduction to Studio Art: Drawing, Painting, and Sculpture

ART 1300 3 cr. 3 hr. ▲

This course provides a hands-on introduction to drawing, painting, and sculpture. The course will emphasize the fundamentals of each studio discipline, but will also explore the expressive potential of visual art: how the various elements of drawing, painting, and sculpture can be used to embody very different feelings and ideas. ART, AOM

Drawing

ART 1400 3 cr. 6 hr. ▲ ●

A studio course that introduces students to the practice of drawing with emphasis on the description of form through means of line, shade, and perspective. An investigation of a variety of media as well as of basic stylistic alternatives is encouraged. AOM, ART,

Introductory Painting

ART 1450 3 cr. 6 hr. ▲

The course studies the basic problems of form, color, and texture as understood in oil or acrylic painting. Consideration is also given to the nature and use of the oil painting materials themselves. AOM, ART,

Design

ART 1600 3 cr. 4.5 hr. ▲ ●

In this course the basic elements and principles of design are analyzed and applied to the creation of two-dimensional form. Topics covered include the effect of black and white, color, mixed media, scale, and texture on form. Lectures, slides, film, and visual presentations are included in the course program. AOM, ART,

Three-Dimensional Design

ART 1650 3 cr. 4.5 hr. ▲

This course explores three-dimensional design concepts as they have been applied historically. Topics covered include form, space, structure, scale, line, and color. Lectures, slides, film, and visual presentations are included in the course program. ART

Contemporary Art

ART 1720 3 cr. 3 hr. ▲

The course presents a study of recent and contemporary trends in American and international art from 1945 to the present. The course consists of active student participation in slide discussions and museum trips. AOM, ART,

Sculpture I

ART 1840 3 cr. 6 hr. ▲

This introductory studio course encourages students to explore their ideas and to transform them into sculpture. Students combine creativity, exciting materials, and basic sculpture techniques to create unique works of art. AOM

Asian Art

ART 2100 3 cr. 3 hr. ▲ ●

This course covers the history of art of this region: from its earliest foundations in India through China and Japan as well as sections on Indonesia, southeast Asia and Korea . Students will learn to analyze and discuss the various aspects and styles of Asian painting, sculpture, architecture and crafts within their historical and religious contexts. Students will begin to see in new ways and to identify how the art of these countries reflects the values of their cultures. There will be some hands-on work in this course: in brushwork, martial arts and perhaps the Japanese tea ceremony. AOM, ART, GDAN

The Art of Puppetry

ART 2150 3cr. 4.5 hrs.

Students will explore shape, form and movement as it relates to character, mood and atmosphere. The history of the art of puppetry from around the world will be discussed through images, videos and readings. Students will learn how to construct masks, shadow puppets, hand and rod puppets, and marionettes and will work in groups to put on performances of folk tales from various parts of the world. Puppetry will also be examined as a tool in education, therapy and advertising.

Life Drawing

ART 2200 3 cr. 6 hr. ▲

The basic problems in form and anatomy are studied while drawing from the nude and costumed model. Various techniques and tools are explored, including a study of some of the great masters' drawings. ART

Intermediate Drawing

ART 2250 3 cr. 6 hr. ▲ ●

The course is an advanced study of pictorial technique in dry media, including but not limited to charcoal, pencil, conte, and pastel. Emphasis is placed on the developing of a student's own style through a variety of subjects and media. ART

Prerequisite: ART 1400 or permission of instructor.

American Art I

ART 2350 3 cr. 3 hr. ▲ ●

This course will explore the art and architecture of America from the early seventeenth century to the end of the nineteenth century, with a particular focus on national identity and self-invention. We will investigate how art informs and is informed by the religious, political, and socio-economic concerns of the period, and how the tensions and desires of an emerging nation were negotiated through its cultural artifacts. AOM, ART,

American Art II

ART 2360 3 cr. 3 hr. ▲ ●

This course will explore the art and architecture of America in the twentieth century, with a particular focus on national identity and self-invention. We will investigate how art informs and is informed by the religious, political, and socio-economic concerns of the period, and how the tensions and desires of our nation are negotiated through its cultural artifacts. AOM, ART

Sculpture II

***ART 2400 3 cr. 6 hr. ▲**

This advanced studio course is an expansion upon the basic principles of sculpture. Sculpture projects are geared toward the individual interests and requirements of the advanced student. ART

Prerequisite: ART 1840 or permission of instructor.

Water-Based Media

ART 2450 3 cr. 4 hr. ▲ ●

The course introduces students to painting with water-based media. Throughout the course, the focus will be on developing command of the medium of transparent watercolor, although painting with acrylics will also be introduced. While a prior course in drawing would be helpful, it is not required. AOM, ART

Renaissance Art

ART 2550 3 cr. 3 hr. ▲ ●

The course studies the development of painting, sculpture, and architecture in Italy from 1250 to 1550, the age of Michelangelo, and the Northern Europe Renaissance from 1400 to 1600. AOM, ART, GDA

Intermediate Painting

***ART 2600 3 cr. 6 hr. ▲**

The course provides an advanced study of pictorial techniques with an emphasis on personal expression in oil, acrylic, or water based media. The class may be repeated for credit. AOM, ART,

Prerequisites: ART 1450, 2450 or permission of instructor.

Baroque Art

ART 2700 3 cr. 3 hr. ▲ ●

This course will explore the art and architecture of Europe in the seventeenth and eighteenth centuries, featuring artists such as Bernini, Velazquez, Vermeer and Rembrandt. We will investigate how art informs and is informed by the religious, political, and socio-economic concerns of the period, and how the tensions and desires of the producers and consumers of art were negotiated through cultural artifacts. ART, GDA

Northern Renaissance Art

ART 2800 3 cr. 3 hr. ▲ ●

This course explores the art and architecture of Northern Europe from about 1300 to 1600, featuring artists such as Jan van Eyck, Albrecht Dürer, Hieronymus Bosch, and Pieter Bruegel. We will investigate how art informs and is informed by the religious, political, and socio-economic concerns of the period, and how art production and consumption were radically transformed during this period. ART

Italian Renaissance Art

ART 2850 3 cr. 3 hr. ▲ ●

This course will explore the art and architecture of Italy from about 1300 to 1600, featuring artists such as Giotto, Raphael, Leonardo da Vinci, and Michelangelo. We will investigate how art was radically transformed during this period, and how art in turn helped transform Renaissance society. ART

Nineteenth Century Art

ART 2900 3 cr. 3 hr. ▲

This survey is comprised of art from French Neo-Classicism through Post-Impressionism, including the movements of Romanticism, Realism, and Impressionism. Emphasis is placed on French, British, and German art, with pertinent comparisons to American, Japanese, African, and ethnographic art. AOM, ART, ARTS, GDA

Art Criticism

ART 3100 3 cr. 3 hr. ▲

The course is a study of the development of modern art criticism. The course begins by examining traditional art criticism as established by Panofsky, Woefflin, and others. It then concentrates on contemporary art and criticism, commencing with Clement Greenberg in the 1940s and concluding with Postmodern criticism of the 1980s and 1990s. ARTS, IDIS

Prerequisite: one Art History course or Music 2000.

Early Twentieth Century Art

ART 3150 3 cr. 3 hr. ▲

The course is a survey of the development of modern art from 1890 to 1945 in Europe and the United States. Periods covered include French Post Impressionism, Fauvism, and Cubism; German Expressionism; Spanish and French Surrealism; Early American Modernism, the Harlem Renaissance, and Regionalism. AOM, ART, GDA

Advanced Open-Media Studio Art

ART 3200 3 cr. 4.5 hr. ▲

Students will develop their personal artistic vision at an advanced level in drawing, painting, or sculpture with emphasis on the expressive potential of visual art. Intermediate level experience in at least one medium is required, but students will be encouraged to explore the connection between the different artistic media as well. ARTS

**The course may be repeated once for credit.*

History of Architecture

ART 3300 3 cr. 3 hr. ▲

This course presents a condensed survey of architectural history from ancient art to the present. Periods studied include Greek, Roman, Romanesque, Gothic, Renaissance, and Baroque architecture. Non-Western architecture includes the culture of Japan, India, and Islam. AOM, ART, ARTS, GDA

History of Modern Architecture

ART 3500 3 cr. 3 hr. ▲

A study of architecture with a concentration upon the 19th and 20th centuries. Periods begin with early American architecture and continue through the various revivals of the nineteenth century, include Art Nouveau and the Chicago School, and conclude with the modern skyscrapers and post-modern architecture. L, IDIS, ART, GDA

Women, Art, and Society

ART 3700 3 cr. 3 hr. ▲ ●

This course introduces the student to the place and roles of women in the world of visual and fine arts from the Middle Ages to the present. AOM, ART, ARTS

Independent Study in Art

ART 4901-4903 1-3 cr. 1-3 hr. ▲ ●

The independent study is for selected students who have approval of both the department head and their advising Instructor.

Museum Internship

***ART 4950 3 cr. 6 hr. ▲**

In conjunction with Fitchburg State University, the Fitchburg Art Museum offers a multifaceted learning experience coupled with practical application conducted in the Fitchburg Art Museum and in elementary school classrooms of Fitchburg and surrounding towns. Student Instructors are trained to give instructional lectures about the ancient cultures of Egypt, Mesopotamia, and Mesa Verde, to school children both in the Museum galleries and in the classroom.

Directed Study

ART 4975 1-6 cr. ▲ ●

Biology

Introduction to Life Science I

BIOL 1000 3 cr. 4 hr. ▲ ●

Offered in the fall semester for day students.

The course focuses on the history, philosophy, and content of biology as a science. Laboratory work includes experiences that emphasize problem solving by the student. SMT, LAB

Introduction to Environmental Science

BIOL 1010/ENSC 1000 3 cr. 4 hr. ▲ ●

The goal of Introduction to Environmental Science is to provide students with the scientific principles, concepts and methodologies required to understand interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. SMT, LAB

Introduction to Life Science II

BIOL 1100 3 cr. 4 hr. ▲ ●

Offered in the spring semester for day students.

Continuation of BIOL 1000. SMT, LAB

Anatomy and Physiology I

BIOL 1200 4 cr. 5 hr. ▲ ●

Offered in the fall semester for day students.

The course explores the structure and function of the human organism on the cellular, tissue, organ, and system levels. Cellular metabolism, histology, and the following systems: skeletal, muscular, and nervous (including the special senses) are examined. The laboratory emphasizes both physiology and the dissection of preserved mammalian specimens. (Not open to students who have completed BIOL 1700, Human Biology or BIOL 2420, Human Physiology.) LAB

Anatomy and Physiology II

BIOL 1300 4 cr. 5 hr. ▲ ●

Offered in the spring semester for day students.

This course is a continuation of BIOL 1200. The following systems are covered: circulatory, respiratory, digestive, excretory, endocrine, and reproductive. (Not open to students who have completed BIOL 1700, Human Biology or BIOL 2420, Human Physiology.) LAB

Prerequisite: BIOL 1200 or permission of Instructor.

General Botany

***BIOL 1400 3 cr. 4 hr. ▲ ●**

The course focuses on the biology of bryophytes, ferns, gymnosperms, and angiosperms. The relationship of plant biology to agriculture and medicine is also discussed. The laboratory involves the study of live and preserved plant materials, simple physiological experiments, and a plant growth project. The class is not open for majors or minors in Biology. SMT, LAB

Seminar in Modern Biology

***BIOL 1500 1 cr. 1 hr. ▲**

The seminar evolves around the discussion of current topics in basic and applied biological research based on readings of original scientific reports. Each student is expected to prepare one brief presentation on a topic of their choice.

Nutrition

BIOL 1650 3 cr. 3 hr. ▲ ●

The course involves an examination of nutrients in foods and their metabolic role in normal nutrition. Emphasis is on energy sources and utilization, vitamins and minerals, nutritional requirements in relation to the changing demands of life, and the effect of food handling and processing on the nutrient content of food. Course material is facilitated by lectures, discussions, and personal nutrition projects.

Human Biology

BIOL 1700 3 cr. 3 hr. ▲

Students learn the anatomy and physiology of the cells, tissues, organs, and organ systems of the human organism as well as their functional inter-relationships, relevant bioethics issues will be presented. (The class is not open to students who have completed BIOL 1200, 1300. Unless permission of instructor is granted.)

General Biology I

BIOL 1800 4 cr. 6 hr. ▲ ●

The course examines principles of molecular, cellular, and organismal biology. Topics include biomolecules, cell structure and function, and information processing and inheritance. The laboratory emphasizes the scientific method through experimentation. SMT, LAB

General Biology II

BIOL 1900 4 cr. 6 hr. ▲ ●

The class is a continuation of BIOL 1800. The course examines principles of organismal biology. Topics include evolution, diversity, plant biology, and comparative anatomy and physiology, evolution and ecology. The laboratory emphasizes hypothesis formation and testing as well as data gathering and analysis. SMT, LAB

Flora of New England

BIOL 2100 3 cr. 3 hr. ▲ ●

This course is an introduction to the vegetation of New England. The emphasis of this course is to become familiar with the flora and the factors that influence the different ecological associations found in New England. Laboratory is devoted to the techniques of plant identification with emphasis on the terminology and use of botanical keys. Field trips are taken for collecting representative elements of the local flora and preparation of a herbarium. Q, SMT, LAB

Ecology

BIOL 2300 4 cr. 6 hr. ▲

Offered in the fall semester for day students.

The course studies the dynamic relationships between organisms and their environment. Field and laboratory work emphasize problem identification, formulation of hypotheses, data collection, and analysis and interpretation of results in terms of their biological implications.

Prerequisite: BIOL 1000, or 1100, or 1800, or 1900 or permission of Instructor.

Human Physiology

BIOL 2420 3 cr. 3 hr. ▲

This course is an intensive study of the functional operation of human organ systems and the interrelationships of these systems. (Intended for students who are majoring in Biology or Clinical Lab Science.) Q

Prerequisite: Not open to students who have taken BIOL 1200/1300 unless permission of Instructor is granted.

Histology

***BIOL 2500 3 cr. 4 hr.** ▲

The course starts with a systematic survey of basic animal cell and tissue types, followed by in-depth microscopic study of the major organ systems. Practical work includes histological microtechnique on normal and pathological specimens.

Prerequisites: BIOL 1800 or BIOL 2420 or BIOL 1200, or 1300 or permission of Instructor

Animal Behavior

***BIOL 2600 4 cr. 6 hr.** ▲

This course focuses on classical and current research exploring the mechanisms and evolution of Animal Behavior. Course topics include the genetic, ecological, evolutionary, cellular and physiological processes that shape animal behavior. Particular emphasis is placed on reviewing primary literature to understand the evolution of adaptive behaviors for communication, predator avoidance, foraging, habitat selection, courtship, mating, parental care, kin recognition, and cooperations. Weekly laboratory session will provide students with the opportunity to conduct independent experiments on animal behavior using a variety of model systems.

Prerequisite: BIOL 1900 or equivalent.

Survey of Microorganisms

BIOL 2700 3 cr. 4 hr. ▲

Offered in the spring semester for day students
2 hrs. lecture, 2 hrs. lab per week plus some additional time.

The course serves as an introduction to the biology of major groups of micro-organisms including bacteria, viruses, protozoa, and fungi. Emphasis is placed on their relationship to man as agents of infectious diseases. In the laboratory principles and practices of aseptic techniques and diagnostic identification and culture of disease entities are explored.

Prerequisites: BIOL 1300 and CHEM 1200 or permission of Instructor.

Genetics

BIOL 2800 4 cr. 6 hr. ▲ ●

Offered in the spring semester for day students.

Basic principles of biological information processing are examined including Mendelian inheritance, sex determination, chromosome cytogenetics, linkage, recombination and genetic mapping, mutagenesis, molecular genetics and gene-enzyme relationships, and quantitative inheritance. Laboratory work includes study of mutational effects and recombinational analysis in Drosophila, bacteria, and viruses.

Prerequisite: Biology 1800 or equivalent.

Introduction to Secondary Teaching

BIOL 2860 3 cr. 3 hr. ▲

This course is required of all students preparing for initial license at the secondary level. It is a sophomore level course for full-time undergraduates and the first course taken by transfer students. It is taught at the local high school and is a clinical laboratory experience. This course includes a 25 hour pre-practicum requirement and is a prerequisite for other certification course requirements. Students become familiar with the complexities of secondary school teaching and its demands. The course gives faculty the opportunity to screen students and gives students the opportunity to test their commitment to teaching.

Prerequisite: GPA of 2.5 or permission of Instructor.

Parasitology

***BIOL 3000 3 cr. 4 hr.** ▲

The morphology and diagnostic identification of representative groups of parasitic protozoa, helminths, and arthropods are studied along with their functional life cycles and pathogenic relationships to animal and human hosts. Emphasis is placed on epidemiology, pathology, control, and treatment of important parasitic diseases.

Prerequisite: BIOL 1900.

Conservation Biology

BIO 3100 3 cr. 3 hr. ▲

Conservation Biology studies biological diversity and strategies to protect it. Major themes include 1) the patterns, ecology and evolution of biodiversity; 2) contemporary threats to diversity; 3) approaches to preserve diversity. Within those themes we explore case studies and assess conservation strategies. Q

Prerequisite: BIO 2300 or permission of instructor.

Cell Biology

BIOL 3250 4 cr. 6 hr. ▲

Cellular and subcellular structure and function are covered in this course. Major topics include membranes, cell organelles, cytoskeleton, respiration and photosynthesis, signal transduction, metabolic regulation, and the cell cycle. Laboratory experiments focus on current cell biology methodologies and instrumentation, and include spectrophotometry, cell fractionation, microscopy, cytochemistry, electrophoresis and cell culture technologies.

Prerequisites: BIOL 2800 and CHEM 2100 or permission of Instructor.

Entomology
*BIOL 3300 3 cr. 4 hr. ▲

Students learn anatomy, habits, life histories, and identification of insects and some related arthropods. Laboratory work includes preparation of a representative collection of adult and larval forms from terrestrial and aquatic environments with emphasis on techniques for identification of these forms.

Prerequisite: BIOL 1900 or permission of Instructor.

Cell Culture Techniques
BIOL 3350 3 cr. 3 hr. ▲ ●

This course consists of a survey of the techniques and experimental approaches used in cell culture experimentation. The design and maintenance of a cell culture facility will be included. Topics covered will include sterile technique, media preparation, types and sources of cells, cell propagation and quantification, and viability assays. Students will develop their own research project based on their interests. They will use the scientific method to formulate hypotheses and carry out appropriate experiments to address the hypotheses. Students will maintain a proper lab notebook and will present formal presentations of their work at the end of the semester including a poster and a seminar.

Prerequisite: BIOL 2800.

Biochemistry
BIOL 3450 4 cr. 6 hr. ▲

Offered every other spring semester.

The course is a study of the chemistry of biologically important molecules and macromolecules, including water, proteins, lipids, carbohydrates, nucleic acids and vitamins. Metabolic pathways, regulation of metabolic flux, and inborn errors of metabolism are covered. Laboratory emphasizes manual and instrumented techniques for isolation, qualitative and quantitative analysis of macromolecules, enzyme kinetics and protein expressions.

Prerequisite: BIOL 2800 and either CHEM 1200 or CHEM 2100 or permission of Instructor.

Developmental Biology
BIOL 3550 4 cr. 6 hr. ▲

Offered in the spring semester for day students.

The course examines a detailed survey of developing embryos from the fertilized egg through the various stages leading to the adult organism. Current theories regarding the molecular mechanisms underlying cell differentiation and other classic developmental processes are also themes of this course. Other topics covered in the survey include regeneration, metamorphosis, aging and cancer. Laboratory involves the study of development in live sea urchins, birds, frogs, and ferns as well as work with prepared slides.

Prerequisites: BIOL 1800, BIOL 1900, BIOL 2800, or permission of Instructor.

Plant Biology
BIOL 3650 4 cr. 6 hrs. ▲

Introduction to Plant Biology is a course designed for students interested in expanding their knowledge of basic plant biology. The emphasis will be on the unique growth form, physiology, reproduction and diversity of Plant Kingdom members. The course will begin with an examination of anatomy and morphology including the process of reproduction, continues with a consideration of plants in a natural or ecological setting, and concludes with a segment on plant evolution and diversity. The second half of the course will concentrate on physiology and molecular biology of plants. Consideration will be given to the importance of plants in environmental studies and the biotech industry. Laboratory focuses on the development of skills in handling plant materials, including using them as experimental organisms. Although I consider this an introductory course I do assume some prior knowledge of basic biological principles. The format will be a combination of lecture and lab with an emphasis on laboratory during class time.

Prerequisites: BIOL1800 and BIOL1900

Bioethics
BIOL 3700 3 cr. 3 hr. ▲

Bioethics explores the clash between modern biology and human values. Students will have the opportunity to develop ethical guidelines and be prepared to think in a critical fashion about biologically precipitated problems. Ethical theories, genetic engineering and cloning are some of the topics to be discussed. The course uses lectures, discussions, and case study analyses.

Prerequisite: One semester of General Biology or Life Science or Anatomy and Physiology or permission of Instructor.

Vertebrate Biology
BIOL 3800 4 cr. 6 hr. ▲

This course provides students with a thorough introduction into the biology of vertebrate animals. Lecture topics include anatomy, physiology, ecology and evolution of classes of vertebrates. Laboratories emphasize the mastery of skills needed to collect and identify vertebrates. Q, LAB

Prerequisite: BIOL 1900 or permission of Instructor.

General Microbiology
BIOL 3900 4 cr. 6 hr. ▲

Offered in the fall semester for day students.

The structure, nutrition, and growth of bacteria is examined in this course as well as characterization of representative bacteria, fungi, viruses and protozoa. Their genetic and metabolic peculiarities, immunological techniques, and the immune response in man is studied. Laboratory work includes aseptic technique, isolation and cultivation of microbes, staining techniques and diagnostic metabolic reactions.

Prerequisites: Organic Chemistry and BIOL 2800 or permission of Instructor.

Endocrinology
*BIOL 4250 3 cr. 3 hr. ▲

The course covers chemical integration of physiological processes by hormones and related agents. Discussions include structure and function of vertebrate and other animal endocrine systems, neuroendocrine relationships, and other topics of current interest.

Prerequisites: BIOL 1200/1300, or BIOL 1800/1900 and one year of Chemistry, or permission of Instructor.

Molecular Biology
*BIOL 4500 4 cr. 6 hr. ▲

Offered every other year.

The course offers studies of restriction enzymes, plasmids, gene cloning, recombinant DNA, DNA sequencing, oncogenes, and other topics of current interest. Laboratory work includes restriction enzyme digests and mapping, gene cloning, bacterial transformation, blue/white color selection, minipreps, PCR, blotting techniques and introduction to bioinformatics. Every other year.

Prerequisites: BIOL 2800 and BIOL 3250 or BIOL 3450.

Evolution
*BIOL 4600 3 cr. 3 hr. ▲

The course is an introduction to the principles and processes governing the evolution of living organisms. Emphasis is placed on the ways by which various other biological disciplines relate to evolutionary studies. A survey of paleontological evidence is given to demonstrate how evolutionary principles have affected life.

Prerequisites: BIOL 1900, 2300, and 2800 or permission of Instructor.

Animal Physiology
BIOL 4700 4 cr. 6 hr. ▲ ●

This course combines an introduction to the core principles of animal physiology with an in-depth discussion of how these principles are modified and shaped by environmental and ecological pressures uniquely confronted by each species. Topics will include neural and sensory physiology, circulation, gas exchange and transport, ion and water balance,

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

digestion and metabolism, movement, and thermal physiology. We will strive for a balanced treatment of representative species and groups from across the animal kingdom, both invertebrate and vertebrate, in lectures, discussions, readings of primary literature, and laboratory exercises.

Prerequisites: BIOL 1800, BIOL 1900, plus at least one advanced course with laboratory BIOL 2000+ level or permission of Instructor.

Neurobiology

***BIOL 4800 3 cr. 3 hr.** ▲

A survey is conducted of neural activity and the neural bases of behavior as illustrated by simpler invertebrate and vertebrate nervous systems. Topics covered in the class include structure and function of neurons, neurodevelopment, cellular basis of behavior (sensory and motor systems), neuropharmacology and neural plasticity. The class is facilitated by lectures and laboratory.

Prerequisites: BIOL 1200/1300, or BIOL 1800/1900 and one year of Chemistry, or permission of Instructor.

Immunology

BIOL 4810 3 cr. 3 hr. ▲

Offered every other spring semester for day students.

The course consists of a survey of immune response, antibody formation and function, immunosuppression, blood group antigens and antibody-antigen reactions. The principles of complement activity, hypersensitivity and autoallergic reactions are discussed.

Prerequisites: BIOL 2800, BIOL 3250, or permission of Instructor.

Methods in Teaching Science

BIOL 4850 3 cr. 3 hr. ▲

The course examines the methods for teaching modern science, includes a 25 hour pre-practicum, and is a prerequisite for student teaching. Topics include methods for teaching scientific inquiry, bioethical decision-making, and critical thinking as well as research on alternative assessment, classroom management and technology in the classroom. Students who plan to student teach should see Teacher Preparation Programs (Undergraduate) for additional requirements.

Prerequisites: BIOL 1800/1900 and a 2.75 overall GPA and 3.0 in Biology, Communication/Literacy MTEL and Subject Area Exam and permission of Instructor.

Independent Study

BIOL 4901-4903 1 to 3 credits ▲ ●

Offered in the fall and spring semesters for day students.

In the Independent Study, participants fulfill laboratory or other independent research under the guidance and supervision of one or more faculty members. A comprehensive term paper and an oral presentation are required for successful completion of the project. Independent study may be repeated for credit to a maximum of nine semester hours.

Prerequisites: junior or senior standing, 15 credits of Biology and special permission of the Biology Department.

Biology Practicum in a Secondary School I and II

BIOL 4860, 4870 6 cr. 6 hr. ▲

Students are assigned to cooperating secondary schools for a semester of student teaching.

Internship

BIOL 4950, 4960 3 or 6 cr. ▲

Offered in the fall and spring semester for day students.

The Internship involves off-campus laboratory or field experience in conjunction with established research programs at cooperating governmental, industrial, or private facilities. Supervision is shared by program directors and faculty members at Fitchburg State University. Assignments are contingent upon students' abilities and acceptance by the cooperating institution. One or two full days of work per week may be expected. A comprehensive term paper and an oral presentation are required after each semester of Internship work for successful completion of the project. An Internship course may be repeated for up to a maximum of 12 semester hours.

Prerequisites: junior or senior standing and approval of the Biology Department.

Directed Study

BIOL 4975 1-6 cr.

Business Administration

Introduction to Computer Information Systems for Business

BSAD 1700 3 cr. 3 hr. ▲ ●

This course introduces the student to computer information science and its applications. The student develops literacy in the computer and its uses. The laboratory work includes an introduction to word processing, spreadsheets databases, and the fundamentals of programming with BASIC. No previous knowledge of computers is required or presumed. Credit is not awarded for both BSAD 1700, Introduction to Computer Information Systems for Business and CSC 1100 Computer Applications. See Business Administration department chair for alternate course selections. Q

Prerequisite: Basic Math II.

Introduction to Business

BSAD 1850 3 cr. 3 hr. ▲

Introduction to Business is a college-level survey course in business that explores the nature of the American free enterprise system and its business organizations. This course examines the role played by business in American society, as well as its purpose and responsibilities. Furthermore, it introduces the student to the practical operations that must exist if businesses are to create goods and services, and it highlights some of the major problems faced by managers in planning, organizing, directing and controlling these areas. Therefore, this course is intended to give the student a broad overview of the functions, institutions, principles and practices of business.

Introduction to Financial Reporting

BSAD 2010 3 cr. 3 hr. ▲ ●

This course provides an overview of financial accounting/reporting in its role as an information system within the socioeconomic environment of business. Financial reporting concepts and practices are presented from a decision perspective in which the content of financial statements and the analysis, interpretation and application of this information in making rational business decisions are examined. Relationships between business events and elements of the financial statements are analyzed. Coverage of accounting procedures is presented to the extent that they are necessary to understand the substance of financial statement information. Internal control of accounting systems will be considered. A base of analytical tools will be provided for interpretation of financial information. Specific financial accounting issues related to current and long-term operational assets, current liabilities, debt instruments and equity are discussed.

Prerequisites: sophomore status. BSAD 1700 or CSC 1400, MATH 0200.

Introduction to Managerial Accounting

BSAD 2020 3 cr. 3 hr. ▲ ●

This course stresses the usefulness of accounting data as it relates to the managerial decision making process relative to planning, control and analysis. Among the multifaceted areas of study are cost volume, profit analysis, budgeting, performance analysis and organizational planning and control.

Prerequisites: BSAD 2010, ECON 1200, MATH 1250 or MATH 2200.

Business Problem Solving with Microcomputers

BSAD 2700 3 cr. 3 hr. ▲ ●

This course uses the computer as a tool to solve business problems. Problem definition, analysis of problem, solution design and implementation are phases leading toward the development of a business application system.

Prerequisite: BSAD 1700.

Financial Reporting Theory and Practice I
(formerly Intermediate Accounting I)

BSAD 3010 3 cr. 3 hr. ▲ ●

This course is designed to provide a strong conceptual, analytical and procedural foundation for the study of financial reporting and practice. The historical development of accounting thought and the role of financial accounting in today's economy are investigated. Socioeconomic, political, legal and ethical influences on financial reporting are considered. Discussions include procedures to record, summarize, and report results of business events; content and presentation of financial statements and specific reporting issues related to cash and receivable. An overview of financial statement analysis is also presented. International issues are addressed as appropriate.

Prerequisites: BSAD 2020.

Financial Reporting Theory and Practice II
(formerly Intermediate Accounting II)

BSAD 3020 3 cr. 3 hr. ▲ ●

In this course, in-depth discussion of financial reporting theory and practice is continued with respect to inventories, concurrent operational assets, current and contingent liabilities, long-term debt and owners' equity. Financial statement analysis of these financial statement elements is also continued. Ethical and international issues are addressed throughout the semester.

Prerequisite: BSAD 3010.

Cost Accounting
BSAD 3120 3 cr. 3 hr. ▲ ●

This course discusses job and process costing, managerial decision making using cost estimation and cost-volume-profit analysis, flexible budgeting, transfer pricing and capital investment decisions.

Prerequisites: BSAD 2020.

Principles of Management
BSAD 3200 3 cr. 3 hr. ▲ ●

This is an introductory course in basic management concepts and practices. This course covers principles and techniques as they relate to planning, organizing, leading and controlling business enterprises.

Human Resources Management
BSAD 3210 3 cr. 3 hr. ▲ ●

This is an introductory course which surveys human resources practices and procedures involved with recruiting, employment, training and development, job evaluation, compensation, health and safety, labor relations and workplace law. Special topics of student interest are also covered.

Prerequisite: BSAD 3200.

Production Management
BSAD 3220 3 cr. 3 hr. ▲ ●

This course provides an overview of business operations. In light of selected production improvement techniques (automation, incentive wage system, etc.), students review the role of selected staff departments (purchasing, production planning, etc.) that support the line organization. In the process, students become familiar with a variety of control systems (quality control, inventory control, etc.), which are fundamental in any business—whether product or service oriented.

Prerequisite: BSAD 3200.

Fundamentals of Marketing
BSAD 3300 3 cr. 3 hr. ▲ ●

This course discusses the role of marketing in our economic and social structure. It includes the planning, distribution, pricing and promotion of goods and services to consumer and industrial markets in the context of internal activities of the firm and environmental forces.

Consumer Behavior
BSAD 3310 3 cr. 3 hr. ▲ ●

This course familiarizes the student with the consumer decision making processes. It utilizes the concepts of the social and behavioral sciences in order to provide an understanding of consumer buying behavior.

Prerequisites: BSAD 3300.

Market Research
BSAD 3320 3 cr. 3 hr. ▲ ●

This course emphasizes the importance of research in marketing planning and decision making. Instruction includes the basics of scientific investigation, the search for information, sampling, data collection, data analysis, interpretation and reporting.

Prerequisites: BSAD 3300.

Advertising
BSAD 3330 3 cr. 3 hr. ▲ ●

In this course students become knowledgeable about the preparation and use of advertising. Topics include the functions of advertising, planning an advertising campaign, copy, artwork and media selection.

Prerequisites: BSAD 2020, 3200, 3300, 3500.

Small Business Management
BSAD 3340 3 cr. 3 hr. ▲

This course provides students with an understanding of the unique characteristics required of the successful small business entrepreneur and the specifics relative to the start-up, financing and management of a small business. Emphasis is on a full spectrum of business functions as applied to small firms, including proprietorships, partnerships, corporations and franchised outlets.

Prerequisites: BSAD 3200, 3300.

TQM (Total Quality Management)
BSAD 3350 3 cr. 3 hr. ▲ ●

This course studies the concepts, practices and methods of contemporary quality management in both manufacturing and service-related industries. Topics may include quality management, customer service, leadership, measuring quality, statistical process and teamwork.

Prerequisite: BSAD 3200.

Basic Finance
BSAD 3400 3 cr. 3 hr. ▲ ●

This course studies the forms and sources of financing business firms, large and small, corporate and noncorporate. The emphasis is on financial planning and financial problem solving.

Prerequisite: BSAD 2020.

Investments
BSAD 3410 3 cr. 3 hr. ▲ ●

The course analyzes stocks, corporate and governmental bonds and other investment media, and studies the secondary stock market mechanism. Students review various investment vehicles and security evolution. Research of individual companies and industries is required. The course is primarily facilitated by lectures and problem solving.

Prerequisites: BSAD 2020, 3200, 3300.

Real Estate Principles and Practices
BSAD 3440 3 cr. 3 hr. ▲ ●

Using a business perspective this course explores real estate use, ownership and development as well as its social impact and business constraints. The effect of home ownership on executive transfers and company costs is examined. Current terminology in the field is defined, including property rights, ownership, financing, planning for the future, property evaluation and property management.

Prerequisite: BSAD 3200.

Real Estate Investment and Management
BSAD 3460 3 cr. 3 hr. ▲ ●

The course looks at the business decisions involved in the investment, financing, and management of real estate. This course focuses on real estate as a popular investment vehicle because of the number of income-producing characteristics it possesses. Students learn the principles of cash flow, changing property values, equity investor, decision-making, risk and return and market research in light of current real estate trends.

Prerequisites: BSAD 2020, 3200, 3300, 3400.

Business Law I
BSAD 3500 3 cr. 3 hr. ▲ ●

This course is an introduction to the study of business law, its nature and classification, the court systems and their procedures. Contract law, the law of sales and personal property are considered comprehensively.

Systems Analysis Methods

BSAD 3710 3 cr. 3 hr. ▲ ●

As an overview of the system development life cycle, this course introduces the student to the fundamental concepts and techniques of systems analysis. Classical and structured methods of systems documentation are explored as well as information gathering and reporting activities.

Prerequisite: BSAD 3900 and CSC 3450

Computer Concepts and Programming Techniques

BSAD 3720 3 cr. 3 hr. ▲

This course is a survey of technical topics related to computer systems with emphasis on the relationship between computer architecture, system software and applications software.

Prerequisites: BSAD 3710, CSC 2700.

Financial Reporting Theory and Practice III

BSAD 4010 ▲ ●

In this course, in-depth discussion of financial reporting theory and practices are continued with respect to inventories, concurrent operational assets, current and contingent liabilities, long-term debt and owners' equity. Financial statement analysis of these financial statement elements is also continued. Ethical and international issues are addressed throughout the semester.

Prerequisite: BSAD 3020, MATH 1800.

Consolidations and Mergers

BSAD 4100 3 cr. 3 hr. ▲ ●

This course includes accounting problems involved in the preparation of consolidated financial statements and in home and branch office relationships. The accounting concepts of purchasing and pooling of interests are stressed.

Prerequisites: BSAD 3020, including all related prerequisites.

International Accounting and Taxation

BSAD 4110 3 cr. 3 hr. ▲ ●

This course will provide an understanding of the international accounting standards and the international taxation rules within the accounting profession. U.S. accounting practices and foreign accounting practices in selected countries will be discussed. Taxation issues will center on U.S. taxes, both corporate and individual, for outbound and inbound transactions.

Prerequisites: BSAD 3020.

Individual Taxation

BSAD 4120 3 cr. 3 hr. ▲ ●

This course studies the federal income tax laws, as they apply to individuals, in compliance and tax planning opportunities.

Prerequisites: BSAD 3020. Financial Reporting Theory and Practice II (including all related prerequisites).

Corporate, Estate, and Gift Taxation

(formerly Advanced Taxation)

BSAD 4130 3 cr. 3 hr. ▲

This course studies the federal income tax laws and regulations in both compliance and tax planning opportunities applicable to partnerships, corporations, fiduciaries and gift and estate taxes.

Prerequisite: BSAD 4120.

Auditing

BSAD 4140 3 cr. 3 hr. ▲ ●

The basic concepts of auditing and control are examined in this course. It emphasizes internal control, audit problems and professional responsibilities of the CPA regarding auditing requirements.

Prerequisite: BSAD 4010.

Not-For-Profit Accounting

***BSAD 4160 3 cr. 3 hr.** ▲

This course examines the accounting and reporting principles, standards, and procedures as they apply to governmental and not-for-profit entities, such as governmental organizations, hospitals, colleges and universities.

Prerequisites: BSAD 3020, including all related prerequisites.

Organizational Behavior and Theory

BSAD 4200 3 cr. 3 hr. ▲ ●

This course is a general descriptive and analytical study of organizations from the behavioral science point of view. It includes problems of motivation, leadership, morale, social structure, group networks, communications, hierarchy and control in complex organizations. The interaction between technology and human behavior is discussed. Alternative theoretical models are considered.

Prerequisites: BSAD 3200.

Social and Political Environment of Business

BSAD 4210 3 cr. 3 hr. ▲ ●

This course is a study of the evolution of American business in the context of its changing political and social environment. Analysis of the origins of the American business creed, the concept of social responsibility of business and the expanding role of the corporation are included.

Prerequisites: BSAD 3200.

Business Fluctuations and Forecasting

BSAD 4230 3 cr. 3 hr. ▲ ●

The analysis of public and business policies, which are necessary as a result of business fluctuations within our capitalist free enterprise system, often require technical forecasting. This course will emphasize this technical forecasting aspect.

Prerequisites: ECON 1200, MATH 1800.

Ethical Decisions in Business

BSAD 4250 3 cr. 3 hr. ▲ ●

This course is designed to explore, discuss and analyze the values and methods that can be used by our future business managers to make ethical decisions in live business situations. It provides a basis for considering the type of corporate policy and environment essential for minimizing the conflict between right and the end justifies the means.

Sales Management

BSAD 4300 3 cr. 3 hr. ▲ ●

This course enhances the students' understanding of and skills for managing the selling function. The emphasis of the coursework is on personal selling as an element in the marketing mix.

Prerequisites: BSAD 3300.

Retail Marketing

BSAD 4310 3 cr. 3 hr. ▲ ●

This course introduces the student to the nature and scope of retail marketing and management. The course includes the structure of retailing, merchandising, buying, pricing, promotion and organization, as well as management of the retail firm.

Prerequisites: BSAD 3300.

Industrial Marketing

BSAD 4320 3 cr. 3 hr. ▲ ●

This course centers on the marketing of goods to industrial firms, governmental agencies and other organizations included within the industrial market. The areas covered in the course include distribution channels, pricing policies, product planning and market strategy.

Prerequisites: BSAD 3200.

International Marketing

BSAD 4330 3 cr. 3 hr. ▲ ●

This course concentrates on the marketing activities of firms operating in an international market. It provides the student with an understanding of the factors that influence the selling of products in international markets. The planning, organizing and controlling of international marketing is explored along with its law, history and economics.

Prerequisites: BSAD 3300.

Developing Marketing Strategies

BSAD 4340 3 cr. 3 hr. ▲ ●

Through the use of case studies and, where possible, cooperating businesses and nonprofit organizations, students identify pertinent marketing problems and opportunities, assess the organization's resources and develop viable marketing programs. The course includes new product development and management strategies for effective marketing policies over the course of the entire product life cycle.

Prerequisites: BSAD 3300.

Financial Management of Corporations
BSAD 4440 3 cr. 3 hr. ▲ ●

This course covers the analysis and management of the flow of funds through an enterprise. Cash management, source, and application of funds, as well as term loans and types and sources of long term capital, are examined. As an introduction to capital markets, the class explores capital budgeting, cost of capital and financial structure.

Prerequisite: BSAD 3400.

Business Law II
BSAD 4500 3 cr. 3 hr. ▲ ●

This course is a continuation of Introduction to Business Law and deals with the law of agency, commercial paper, credit and the various forms of business.

Prerequisite: BSAD 3500.

Systems Design & Implementation
BSAD 4700 3 cr. 3 hr. ▲ ●

This capstone course will emphasize the design and implementation phases of the system development life cycle using case studies. A problem solving approach will be used for students to learn strategy and techniques for dealing with complexities in Information Systems Development.

Prerequisite: CSC/BSAD 3710

Data Base Management Systems
***BSAD 4720 3 cr. 3 hr. ▲ ●**

This course provides an introduction to the concepts of database processing with emphasis on application programming in a database environment. Physical and logical organization of data, data relationships and operational requirements of a database management system are also discussed.

Prerequisites: BSAD 3710, CSC 2700.

Applied Software Development
BSAD 4730 3 cr. 3 hr. ▲

As the capstone course in the MIS concentration, this course requires the student to apply concepts, principles and problem solving techniques, as well as strategies and tools learned in previous MIS and business courses to the development of a realistic computer-based information system of medium complexity.

Prerequisite: BSAD 3720.

International Business Management
BSAD 4880 3 cr. 3 hr. ▲

The course provides an analysis of the complexities of doing business overseas. Emphasis is on commerce, trade and investments. Topics include cultural differences, market barriers, business practices, product/market strategies, distribution and organization for small firms and multinational corporations.

Prerequisite: senior status in Business Administration or permission of Department Chairperson.

Business Policy and Strategy
BSAD 4890 3 cr. 3 hr. ▲ ●

This course integrates all organic management functions. Cases are used as subjects for analysis and systematic decision making practice.

Prerequisite: senior status in Business Administration or permission of Department Chairperson.

Independent Study—Management
BSAD 4903 3 cr. ▲ ●

Independent Study—Accounting
BSAD 4913 3 cr. ▲ ●

Independent Study—Marketing
BSAD 4923 3 cr. ▲ ●

Independent Study-CIS
BSAD 4933 3 cr. ▲ ●

To study specific, advanced topics in the Business Administration area, students must have the approval of the supervising instructor and the department.

Independent Study—Management
BSAD 4902 2 cr. ▲ ●

Independent Study—Accounting
BSAD 4914 2 cr. ▲ ●

Independent Study—Marketing
BSAD 4934 2 cr. ▲ ●

Independent Study—Management
BSAD 4915 1 cr. ▲ ●

Independent Study—Accounting
BSAD 4925 1 cr. ▲ ●

Independent Study—Marketing
BSAD 4935 1 cr. ▲ ●

Independent Study—CIS
BSAD 4945 1 cr. ▲ ●

Internship: Business Laboratory
BSAD 4910 1 cr. ▲ ●
BSAD 4920 2 cr. ▲ ●
BSAD 4930 3 cr. ▲ ●

The (1,2,3 credit) Business Laboratory Internships operate within the Business and Technology Training Center. The Business laboratory is a learning laboratory that allows students to work on various projects. Students will participate in developing and operating their own consulting firm in the laboratory. They will develop outreach to large, medium and small businesses, organizations, institutions and enterprises. Students may earn up to six credits throughout their four years of university.

BSAD 4950 6 cr. ▲ ●

This course is a part time (18 hour per week) internship in either the private or public sector. The purpose of the course is to allow the student the opportunity to synthesize the theoretical learning of the classroom with a practical work situation.

Prerequisite: approval by Internship Director.

Internship
BSAD 4970 12 cr. ▲ ●

This course is a full semester (36 hour per week) Internship in either the private or public sector. The purpose of the course is to allow the student the opportunity to synthesize the theoretical learning of the classroom with a practical work situation.

Prerequisite: approval by Internship Director.

Internal Departmental Practicums
(Business Laboratories)

BSAD 4915, 4925, 4935 (see Independent Studies) ▲

Students will participate in a series of learning laboratories, including a student-run consulting firm. The Business Administration Department offers students opportunities to receive up to six credits by working on actual business projects on campus and in the community.

Prerequisite: permission of Department Chairperson.

Directed Study
BSAD 4975 1-6 cr. ▲ ●

Chemistry

Chemistry in a Changing World
CHEM 1000 4 cr. 6 hr. ▲ ●

This is a chemistry course for non-science majors only. The purpose of this course is to provide a basic knowledge of chemistry so that one can understand many of the real-life situations that have a foundation in chemistry. This will be accomplished by considering real-world situations, many of which have an environmental focus: for example, the ozone hole, global warming, energy, carbon footprint, water, acid rain, air pollution, basic organic chemistry, green chemistry and the concept of sustainability. Lecture and lab.
Q, SMT

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Chemistry for the Health Sciences

CHEM 1200 4 cr. 6 hr. ▲ ●

This course is designed specifically for nursing and exercise sports majors and will include a study of selected topics from general chemistry and biochemistry. (This course will not fulfill the requirements of the biology major or healthy professional programs such as medicine, dentistry, veterinary science, pharmacy, physical therapy, occupational therapy and physician assistant). Lecture and lab. Q, SMT

General Chemistry I

CHEM 1300 4 cr. 6 hr. ▲ ●

The course explores the fundamental laws and theories of chemistry such as atomic structure, the periodic table, electrochemistry, descriptive inorganic chemistry, the gas laws, solutions, equilibrium calculations and chemical bonding. Chemical calculations are emphasized. SMT

General Chemistry II

CHEM 1400 4 cr. 6 hr. ▲ ●

This course is a continuation of General Chemistry I. Topics include chemical, acid/base, and solubility equilibria and chemical kinetics. SMT

Prerequisite: CHEM 1300.

Organic Chemistry I

CHEM 2000 4 cr. 6 hr. ▲ ●

This course is recommended for those who need for a solid theoretical foundation in chemistry, especially those contemplating graduate study in science or medicine. Properties of organic compounds are discussed in terms of their molecular structures and reaction mechanisms.

Prerequisites: CHEM 1400.

Organic Chemistry II

CHEM 2100 4 cr. 6 hr. ▲ ●

This course is a continuation of CHEM 2000.

Prerequisite: CHEM 2000.

General Analytical Chemistry

CHEM 2400 4 cr. 7 hr. ▲

Introductory course in analytical chemistry designed to supplement the theory and practice in the discipline, begun in General Chemistry I & II. Topic coverage to include: titrimetric, gravimetric, electrochemical, spectrophotometric and chromatographic methods of analysis. Three hours of lecture and four hours of lab per week.

Pre-requisites: General Chemistry I and II; completion or co-enrollment in or Organic Chemistry I or II.

Physical Chemistry I

CHEM 3200 4 cr. 6 hr. ▲

The course explores the underlying principles of chemistry from a physical chemistry standpoint. Topics of discussion include kinetic theory, theories of the structure of matter, theory of solutions, electrochemistry, thermodynamics, spectroscopy and kinetics.

Prerequisite: CHEM 2100 or the equivalent.

Elements of Physical Chemistry

CHEM 3210 4 cr. 6 hr. ▲

This is an introductory course in physical chemistry covering topics such as thermodynamics, mass-transport and solutions, etc. It is designed to provide students with the ability to think critically and utilize physical parameters in chemical systems, to perform numerical calculations involving these systems and use the understanding when viewing environmental problems and risks.

Physical Chemistry II

CHEM 3300 4 cr. 6 hr. ▲

The course is a continuation of Physical Chemistry

Prerequisite: CHEM 3200.

Analytical Chemistry II

CHEM 3500 4 cr. 6 hr. ▲

The course studies instrumental analysis. Laboratory experiments include spectrophotometric, conductometric, potentiometric and chromatographic analyses.

Prerequisites: CHEM 2100 and CHEM 3000 or the equivalent.

Advanced Topics

Student and faculty availability determine the following course offerings.

Advanced Inorganic Chemistry

***CHEM 3600 3 cr. 3 hr. ▲**

The course studies bonding theories, acid-base theories, reactions in non-aqueous solvents, complexation and chelation, reactivity and physical measurements.

Prerequisite: CHEM 1400 or the equivalent.

Natural Products

***CHEM 4000 3 cr. 3 hr. ▲**

This course examines chemistry isolation, purification and identification of pure compounds from a variety of naturally occurring substances. Special techniques are introduced whenever feasible.

Prerequisites: CHEM 2000 and 2100.

Biochemistry (See BIOL 3450).

CHEM 4100 4 cr. 6 hr. ▲

Prerequisite: CHEM 2100.

Polymer Chemistry

***CHEM 4200 4 cr. 6 hr. ▲**

This introduction to the synthesis and properties of macromolecules also serves as an application of chemical principles to this interesting and important group of materials.

Prerequisites: CHEM 2000 and 2100 or the equivalent.

Radiation Chemistry

CHEM 4300 4 cr. 4 hr. ▲

The fundamentals of radiation chemistry are explored, including radioactivity, atomic nuclei, nuclear reactions, decay systematics, reactors and radiation detection and measurement. Emphasis is placed on the use of radioactive materials in chemical applications.

Prerequisites: CHEM 1400, PHYS 2400.

Forensic Chemistry

CHEM 4400 3 cr. 3 hr. ▲

This course studies forensic detection of crimes by examining physical evidence, such as hair, fibers, paint, drugs, DNA, fingerprints, firearms and tool marks, as well as toxicology, arson, explosion, serology, rape victims, documents and voice examination.

Independent Study in Chemistry

CHEM 4900 1 to 3 cr. ▲

This independent study facilitates laboratory research under the guidance of the Chemistry staff.

Prerequisite: permission of the Instructor.

Internship

CHEM 4940 3 cr. ▲

The Internship gives the student an opportunity to work in an industrial, government, or private research laboratory to gain experience relevant to their major.

Internship

CHEM 4950 6 cr. ▲

The Internship gives the student an opportunity to work in an industrial, government, or private research laboratory to gain experience relevant to their major.

Directed Study

CHEM 4975 1-6 cr. ▲

Communications Media

Film and Video Concentration courses are ONLY open to students matriculated into the Film and Video Concentration of the Communications Media Department. All required courses in the Film and Video Concentration must be taken within the department, although transferred film and video courses can be used to fulfill Phase III Electives within the Communications Media Department requirement.

Courses being taught on an experimental basis can be taught as "Topics" courses. These courses will be assigned numbers based on the student level for which they are intended-first, second, third or fourth year. Prerequisites for these topics classes will depend on the content of the particular course and will be determined by the faculty member teaching it.

Introduction to Communication and Media Studies

COMM 1105 3 cr. 3 hr. ▲

The course surveys the communication field—its major theories and history—as well as examines, professionally and critically, the current structure of the media industries and their cultural, economic, regulatory, social and technological systems.

Message Design

COMM 1120 3 cr. 3 hr. ▲

The course introduces visual communication for the development of visual literacy. Students become involved with a variety of activities in previsualization, planning, designing, making and evaluating visual messages. This course specifically relates to the communications concentrations taught in Phase II, including professional communication, television, photography, film, interactive media and graphic design.

History of Photography

COMM 2400 3 cr. 3 hr. ▲

The course presents a survey of the development of photography to the present day. L, ART

History of Film I

COMM 2405 3 cr. 3 hr. ▲

This course is an examination of the major and influential works, artists, movements, cultures and industries in world cinema from its beginnings to the 1950s, as well as the field's historiography and modes of inquiry. L, C, ART

History of Film II

COMM 2415 3 cr. 3 hr. ▲

This course is an examination of the major and influential works, artists, movements, cultures and industries in world cinema from the 1950s to the present, as well as the field's historiography and modes of inquiry. L, C, ART

History of TV

***COMM 2420 3 cr. 3 hr.** ▲

The course provides a comprehensive analysis of television broadcasting from its inception to the present. The social and technological aspects of the medium are presented and examined in a lecture and seminar format. Particular emphasis is placed on television's sociological influence and impact on the communication process. I, ART

Prerequisite: ENGL 1200

History of Graphic Design

***COMM 2430 3 cr. 3 hr.** ▲

This course presents the history of typography and its pertinence to graphic design from the beginning of written history to the present. Emphasis is placed on various movement of avant garde typography of the early 20th century and its influence on present day graphic design. ART

Journalism

COMM 2800 3 cr. 3 hr. ▲

The course studies the press with emphasis on ethics in news, treatment of contemporary issues and structuring the news story. Students write individualized assignments. (Credit is not given for both COMM 2800 and ENGL 2800.)

Prerequisites: ENGL 1100, ENGL 1200.

Contemporary Cinema

COMM 3200 3 cr. 3 hr. ▲

A survey of major trends in world cinema, primarily during the last 15-20 years, including the best and/or most influential works, artists, movements, technologies, cultures and industry trends. Any connections between these developments will be considered in social and historical, as well as aesthetic, contexts through a process that engages the relevant modes of inquiry and discursive formations practiced in film theory, history and criticism. Includes screening and analysis of representative films. Evaluation to be based principally upon critical/analytical essays and/or a research paper. L, ART

Prerequisites: ENGL 1100, ENGL 1200 & COMM 2405 & COMM 2415

Interactive Media Project Design

COMM 3304 3 cr. 3 hr. ▲

The course provides an introduction to the history, theory and practice of designing communications for interactive/multimedia environments. Special attention is paid to flowcharting, branching, hierarchy structures, screen design, storyboards, scripting and all aspects of user interface design. Students also consider the roles of learning theory and instructional design as they create design documents for course projects.

Interactive Media I

COMM 3305 3 cr. 3 hr. ▲

This course introduces tools and techniques for designing Web-based interactive projects. Students learn fundamental concepts of hypertext, Web design, digital imaging, and animation, and build a working knowledge of software such as Photoshop, Dreamweaver and Flash for creating, editing and authoring creative multimedia work.

Interactive Media II

COMM 3306 3 cr. 3 hr. ▲

This intermediate course will focus on Web design and advanced Flash techniques. Students will hone their skills in HTML, image optimization, slicing, page layout, CSAS styles, JavaScript and other Web technologies. Advanced Flash techniques including HTML integration and advanced interactivity with ActionScript will be covered. The course is run as a workshop, featuring software demos, in-class exercises, discussions and rigorous critique of work in-progress.

Prerequisite: COMM 3305.

Interactive Media III

COMM 3307 3 cr. 3 hr. ▲

A study of advanced techniques of authoring, design and production that students apply in sponsored projects. Working in groups of three or four, students simulate a professional design team's production regimen in order to complete an advanced multimedia production of professional portfolio quality.

Prerequisites: COMM 3304, COMM 3505 and 3306.

Interactive Media Seminar

COMM 3308 3 cr. 3 hr. ▲

This seminar provides an opportunity to study advanced topics of multimedia design and development. Subjects covered in the seminar include design and application of game theory, computerized animation, morphing techniques and virtual reality.

Prerequisite: COMM 3305 or permission of the Instructor.

Interface Design

COMM 3309 3 cr. 3 hr. ▲

This course investigates the design of interactive interfaces for multimedia and World Wide Web presentation. Students explore how the conceptual and aesthetic aspects of graphic design apply specifically to non-linear interactive digital environments.

Prerequisites: COMM 3810, COMM 3880 and COMM 3890.

DVD Authoring

COMM 3350 3 cr. 3 hr. ▲

DVD-Video is the distribution medium of choice for film/video and interactive multimedia content. This course bridges the film/video and interactive media tracks to address video compression and menu design for DVD-Video. Students will learn and apply skills used by DVD industry professionals in the production of significant DVD projects.

Prerequisites: COMM 3305 and COMM 3740 or Permission of Instructor.

Game Design

COMM 3380 3 cr. 3 hr.

Video games have been an important and formative aspect of our experience with interactive multimedia, from the development of Spacewar in 1962 to the current game consoles and Massively Multiplayer Online Roleplaying Games (MMORPGs). This course will serve two purposes: first, we will investigate the history and cultural resonance of video games by examining relevant examples in several game genres and eras. Also, you will learn essential game design principles and tools, culminating in the design and implementation of your own video game created in Macromedia Flash and ActionScript.

Prerequisites: COMM 3305 or Interactive Media I or previous experience with Macromedia Flash or any programming/scripting language, or permission of instructor.

Writing for Advertising

COMM 3430 3 cr. 3 hr. ▲

The course provides an introduction to the principles, strategies and ethical issues in writing advertising for various media. Students create written copy for individual unified media campaigns.

Public Relations

COMM 3460 3 cr. 3 hr. ▲

The focus in this course is on the role of managed communications in public relations unique to industry, human services and educational institutions. Definitions and concepts, history, potential careers and research methods are examined.

Document Design

COMM 3470 3 cr. 3 hr. ▲

This course gives students the opportunity to develop a wide variety of professional documents within the context of a client project. Examination of graphics, typography and design principles are considered as they apply to hardcopy production.

Introduction to Film and Video

COMM 3505 3 cr. 3 hr. ▲

This is the foundation course for the Film/Video concentration. Students are introduced to the basics of production and post-production in the two media. Topics include understanding and using visual language, film and video camera operation, understanding the film and video production process, basic film and video nonlinear editing, production crew structure and interpersonal communication. Students shoot Super 8 or 16mm film and videotape and then edit both the film and video. Students are required to purchase film and video tape as well as pay for processing.

Prerequisite: film and video concentration status.

Pre-Production Planning for Film and Video

COMM 3506 3 cr. 3 hr. ▲

This course considers the intent and purpose of a message as a first step in media production. The social and cultural implications of media storytelling are examined. The course focuses on clearly defining message content, intent and audience as a precursor to an exploration of how particular film and video techniques communicate and are interpreted. Teams will subsequently develop the pre-production planning needed for a short film or video work, including idea development, script treatments, story development, script writing, rewriting, storyboarding, script breakdown, production scheduling and resource planning.

Note: *the department recommends that this course be taken at the same time as either COMM 3520 or COMM 3710.*

Prerequisite: COMM 3505

Audio Production for Film and Video

COMM 3510 3 cr. 3 hr. ▲

This course covers audio production basics—field, studio and booth audio acquisition, logging, mastering and archiving—with an emphasis on audio's role in film and video production. By the end of the course, the student will be able to capture the highest quality audio in the manner most effective for integration during film or video post-production. Technical and aesthetic issues affected by location recording and their implications on post-production are covered.

Prerequisite: COMM 3506, COMM 3520 or COMM 3710.

Intermediate Digital Cinema Production

COMM 3520 3 cr. 3 hr. ▲

Intermediate Digitals Cinema Production covers professional production techniques used in modern narrative production environments. In addition to achieving competency in lighting, exposure, composition and framing with video cameras, students master the basics of audio production both on location and in studio environments and the editing of the dramatic narrative. Creative narrative skills such as scriptwriting, storyboarding, direction and management are explored in the practical setting of a modern digital cinema environment.

Prerequisite: COMM 3505

Intermediate Documentary Production

COMM 3521 3 cr. 3 hr. ▲

This course covers professional production techniques used in modern non-narrative production environments. In addition to achieving competency in lighting, exposure, composition and framing with video cameras, students master the basics of audio production both on location and in studio environments and the editing of the Documentary topic. Documentary genres explored include Documentary, Electronic News Gathering, Human Interest and Public Service Announcement Production.

Prerequisite: COMM 3505

Post-Production

COMM 3530 3 cr. 3 hr. ▲

This is an intensive course in film and video editing, as well as other post-production techniques. Course work includes practice in editing theory and practice, standard cutting techniques, editing workflow and multi-track sound mixing. The course is based on the use of professional non-linear editors. Students are required to provide their own supplies.

Prerequisite: COMM 35060 or COMM 3520 or COMM 3710.

Advanced Video Production

COMM 3540 3 cr. 3 hr. ▲

Advanced Video Production is an upper-level production course provides the opportunity for students to produce work of professional quality. This course draws on the skills of all previous courses in production. Working in production groups, students write, shoot and edit a broadcast-quality video program, based on a pitched and faculty-approved proposal. The final edit is shot in HD and completed on non-linear uncompressed editing systems. Students are required to purchase all production materials.

Prerequisite: One of the following courses COMM 3510, COMM 3530, COMM 3550, COMM 3580, COMM 3730, COMM 3740, or COMM 3758.

Production Management

COMM 3550 3 cr. 3 hr. ▲

The course provides an examination of the fundamentals of production management. Topics covered in the class are production budgets, production scheduling, contracts and agreements, union regulations for actors and crew members, shooting permits, legal implications and financial structures.

Prerequisite: COMM 3506, COMM 3520 or COMM 3710.

Sound Design

COMM 3560 3 cr. 3 hr. ▲

This course examines the elements of post-production sound design within the context of film and video production. This course blends the artistic and the technical. Students will use nonlinear editors, digital audio work stations and analog and digital recording equipment to design soundtracks for their film and video productions. All materials are the responsibility of the student.

Prerequisite: COMM 3506 and COMM 3520 or COMM 3710.

Lighting

COMM 3580 3 cr. 3 hr. ▲

The course provides an introduction to the techniques of lighting, both on location and in the studio. Topics covered in the class include the use of lighting instruments, lighting control media and devices, location lighting techniques, studio lighting techniques, camera movement, composition, metering, the use of lenses, electrical and safety considerations, grip techniques and equipment. Students are required to purchase videotape and other production supplies.

Prerequisite: COMM 3506 and COMM 3520 or COMM 3710.

Photography I

COMM 3600 3 cr. 3 hr. ▲

The course introduces technical and aesthetic aspects of photography, such as exposure techniques, film, paper, and basic 35 mm camera work. Students are responsible for all paper, film, supplies and mounting materials.

Photography II

COMM 3610 3 cr. 3 hr. ▲

This course is both a continuation and refinement of film photography and the material covered in COMM 3600 and an introduction to digital photography. RAW file manipulation and elementary Photoshop manipulations along with editing and sequencing, filters and flash, are covered.

Pre-requisite: COMM 3600.

Photography III

COMM 3620 3 cr. 3 hr. ▲

The course introduces medium format photography and the digital studio. Lighting, portraiture and commercial photography are explored in professionally designed studios. Students are responsible for all paper, film, chrome processing and digital storage backup.

Prerequisite: COMM 3610.

Large Format Photography

COMM 3630 3 cr. 3 hr. ▲

The course specializes in 4 x 5 photography and the use of the Zone System for exposure and development. Students are responsible for all paper and film supplies.

Prerequisite: COMM 3610.

Color Photography

COMM 3640 3 cr. 3 hr. ▲

The course introduces the basic theory of color photography. Printing is emphasized and all work is C-prints and chromes.

Prerequisite: COMM 3610.

Digital Photography

COMM 3645 3 cr. 3 hr. ▲

The course studies the fundamentals of digital image acquisition, scanning, image manipulation and various output devices. Students are responsible for digital storage backup.

Prerequisite: COMM 3620 or 3640 or permission of Instructor. Fulfills computer literacy requirement.

Photo Management

COMM 3660 3 cr. 3 hr. ▲

The course studies photographic space design for private, commercial and educational use. The class promotes an understanding of flow, function, equipment inventory, record keeping and budget control.

Prerequisite: COMM 3610.

Photography Seminar

***COMM 3690 3 cr. 3 hr.** ▲

The seminar provides an opportunity for advanced study in the medium. Students are responsible for all paper and film supplies.

Prerequisites: COMM 3620, 3630, or 3640.

Intermediate Film Production

COMM 3710 3 cr. 3 hr. ▲

Intermediate Film Production introduces the tools of professional motion picture production. Topics include 16 mm sync camera operation, lens and filter differentiations, camera support, shooting tests of several film emulsions, film laboratory procedures, use of sync sound equipment (Nagra and DAT) and AVID nonlinear editing. Students must master a minimum level of proficiency both with production and post-production tools. Note: the department recommends that this course be taken at the same time as COMM 3506.

Prerequisite: COMM 3505.

Advanced Film Production

COMM 3720 3 cr. 3 hr. ▲

The course provides an advanced examination of professional 16 mm production and AVID nonlinear post-production techniques. Topics covered in the class include location shooting, sound recording and editing, film editing, negative matching and interlock mixing. Students produce a professional 16 mm film during the course. Film and processing costs are shared by all students.

Prerequisites: One of the following courses COMM 3510, COMM 3530, COMM 3550, COMM 3580, COMM 3730, COMM 3740, COMM 3750.

Directing Video/Film

***COMM 3730 3 cr. 3 hr.** ▲

This course examines the role of the director. Topics covered in the class include script analysis and breakdowns, casting, blocking the camera and the actors, acting and directing actors. The class focuses on the relationships between the director and producer, actor, writer and editor, as well as between the director and the cinematographer. The role of the assistant director is defined, and unions, talent agencies, schedule planning and interpersonal communications are explored. Students are responsible for all materials.

Prerequisites: COMM 3506 and COMM 3520 or COMM 3710.

Digital Production for Film and Video

COMM 3740 3 cr. 3 hr. ▲

Advanced visual effects and finishing techniques using modern digital production tools. Topics covered in class include matte generation and clean plating techniques, chroma key shooting and post-production, pre-visualization for effects shooting, rotoscoping and keyframing techniques and project management. Students will master minimum level of competency with advanced compositing applications like Apple Shake and Commotion Pro. Students will produce a final project of complexity and quality from pre-visualization through output to target medium.

Prerequisites: COMM 3506 and COMM 3520 or COMM 3710.

Cinematography

COMM 3750 3 cr. 3 hr. ▲

Cinematography is an advanced elective for film and video students who wish to specialize in the specific elements of production related to cinematography. This course is a blend of the artistic and the technical. Aspects of the topic include film stock, laboratories, lenses, lighting, cameras, composition, camera angles, continuity, color and special processes. The relationship between the cinematographer and other members of the production team, as well as the structure of feature film camera departments will be examined.

Prerequisite: COMM 3506 and COMM 3520 or COMM 3710.

Film Styles, Genres, and Movements

COMM 3760 3 cr. 3 hr. ▲

This course blends theoretical and historical concepts associated with a selected genre, style or movement within a production course setting. Students will study a selected genre, style or movement, and then, in groups, will write and produce a short film or digital video, based within the historical and/or theoretical framework that the class has studied. The course structure will be split between production technique and tutorials and the viewing/studying of the chosen style, genre or movement.

Prerequisites: COMM 3506 and COMM 3710 or COMM 3520 or COMM 3521.

Writing for Film and Video

COMM 3765 3 cr. 3 hr. ▲

Writing for Film and Video is a writing intensive course that builds on the foundation of dramatic narrative film writing and narrative theory covered in COMM 3506: Pre-Production. Students are instructed in narrative and character development, as well as, the art of cinematic dialog and proper writing technique. Emphasis is on creative and compelling storytelling, as well as, developing the strategies and discipline for long form narrative. Additionally, the course covers marketing, sales strategies, legal issues and copyright including registration with the WGA (Writers Guild of America).

Prerequisites: COMM 3506 and COMM 3710 or COMM 3520 or COMM 3521.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
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Introduction to Graphic Design

COMM 3810 3 cr. 3 hr. ▲

The course introduces students to the language of graphic design and develops an understanding of visual literacy and the foundations of design aesthetics. Students become exposed to fundamental design principles including form, tone, color, texture, image and composition. Students are introduced to typography, identity design, sequencing and narrative in design to develop skills with layout and conceptual messages. (Credit is not given for both COMM 3810 and ITEC 2520.)

Intermediate Graphic Design

COMM 3820 3 cr. 3 hr. ▲

This intermediate level course emphasizes visual relationships between typography and images. By using a problem solving approach to graphic design, students apply advanced design solutions to print through preparing highly comprehensive digital layouts. Further, students explore illustration by combining traditional and digital media and investigate the role of motion graphics through storyboard development.

Prerequisite: COMM 3810.

Illustration

COMM 3830 3 cr. 3 hr.

By concentrating on technical and creative illustration, students have an opportunity for advanced study in graphic design. Students work in various media, including pen and ink, water color, marker and colored pencil. Students are responsible for illustration supplies.

Prerequisite: COMM 3820.

Graphic Design Portfolio and Practice

COMM 3840 3 cr. 3 hr. ▲

The course studies the practices of advertising, sales and marketing management in business, industry, and education. Emphasis is placed on the graphic designer in the role of creative art director, production manager and design illustrator. Topics of study include careers in graphic design and portfolio design and preparation.

Prerequisites: COMM 3820.

Publication Design

COMM 3850 3 cr. 3 hr. ▲

The course examines all aspects of publication design focusing on designing with type and combining photography and illustration with text in editorial design, brochures, books, posters and Web page design. Grid design as an organizing and creative principle contrasted with asymmetric design will be emphasized in assignments. Techniques for print production processes will be examined. Portfolio quality pieces are produced in this advanced level course.

Prerequisites: COMM 3820 and COMM 3890.

Writing for Business and Technology

COMM 3860 3 cr. 3 hr. ▲ ●

The course is for students interested in writing in the business, industry and management context. Topics covered in the class are business correspondence, description of process and mechanisms, sets of instructions, proposals, abstracts and reports. (Credit is not given for both COMM 3860 and ENGL 3860.)

Prerequisites: ENGL 1200.

Feature and Magazine Writing

COMM 3870 3 cr. 3 hr. ▲

This reality-based course covers all aspects of developing, writing and marketing feature articles for magazines and trade journals. Students practice interview and research techniques, writing query letters, finding target markets, and crafting articles that demonstrate effective use of slant, theme, voice and viewpoint. (Credit is not given for both ENGL 3870 and COMM 3870)

Prerequisites: ENGL 1200.

Typography

COMM 3880 3 cr. 3 hr. ▲

The course is designed to teach the fundamentals of typography. Students will create projects that will enhance their knowledge of professional layout and design programs, while paying special attention to the subtleties of typography. Comparisons will be made between preparing simple and complex files for print. Students are responsible for all graphic supplies.

Prerequisite: COMM 3810, 3890.

Computer Graphic Design

COMM 3890 3 cr. 3 hr. ▲

The course introduces students to vector-based computer design applications that are integral to the modern professional design environment. Students learn page layout, image manipulation and illustration software. Students develop a beginning to intermediate-level proficiency in Quark XPress, Adobe Photoshop, Adobe Illustrator and Adobe Acrobat. Further, students learn how to prepare their files for print and digital output and are introduced to other industry standard software for graphic design.

Prerequisite: COMM 3810.

Graphic Design Photography

COMM 3900 3 cr. 3 hr. ▲

The course covers the commercial applications of photography, including product presentation, advertising, illustration, promotion and publication photography. Students learn the role of the designer as a photographer who solves assigned problems using various techniques, including digital photo and image manipulation. Students are responsible for all graphic supplies.

Prerequisites: COMM 3600 and COMM 3820.

Motion Graphic Design

COMM 3940 3 cr. 3 hr. ▲

This course investigates the processes involved in choreographing and producing animated two-dimensional images and typography. Students demonstrate a variety of techniques, including frame-by-frame animation, keyframe interpolation and animation compositing using Adobe and Macromedia software. Assignments explore storyboarding, "four-dimensional" typography, vector-based animation, animated illustration and digital video for multimedia and World Wide Web presentation.

Prerequisites: COMM 3810 and COMM 3890.

Advanced Graphic Design

COMM 3950 3 cr. 3 hr. ▲

A range of design problems in both print and digital media will be explored. Projects will realistically reflect the range of work and professional practices designers encounter in their studio, agency or corporate design environment. Issues in pre-press production, professional design practices and ethics are emphasized.

Prerequisites: COMM 3820 and COMM 3890.

Writings in Aesthetics

COMM 4000 3 cr. 3 hr. ▲

Located at the interface between theory and production, Aesthetics is a writing intensive Communication Studies course that capitalizes on this vantage point to critically examine the professional arts comprising our curriculum, namely film, video, graphic design, photography, interactive media, and professional communication. Through weekly readings and writings, seminar discussions, presentations, and a term length qualitative research project, this writing intensive course bridges the theory/production dichotomy.

Prerequisite: COMM 1105 and COMM 1120.

Human Communication

COMM 4200 3 cr. 3 hr. ▲

The course provides for the study of human communication theories, concepts, contexts and skills with the intent of developing an understanding of everyday interaction. Through the study of human communication theory, students will develop the vocabulary and concepts to evaluate communication practices. The class pays particular attention to achieving self-presentation and relational skills that apply to a variety of social contexts students encounter. Class discussion, activities and assignments are designed to develop both knowledge and competencies necessary to understand the relationship between communication patterns and social order.

Prerequisite: junior status

Seminar in Communication Theory

COMM 4205 3 cr. 3 hr. ▲

The seminar provides detailed and extensive study of communication theories, particularly interpersonal and mass communication theories.

Media and Society

COMM 4206 3 cr. 3 hr. ▲

This seminar provides a broader framework for understanding the relationship between media and society, and skills for critically evaluating the social role of media. The topics draw upon current media debates about the increasing concentration of media ownership, the role of the independent media sector, the rise and regulation of new media, the media portrayals of underrepresented segments of population, the relationship between media and identity, the active role of media audiences, and the growth of global media. The readings include and cite important texts in media theory and cultural studies.

Instructional Training Design

COMM 4210 3 cr. 3 hr. ▲

The course examines instructional communications as they apply to selected learning theories and various instructional approaches or methods. Strong emphasis is given to the application of learning theories to interactive technologies.

Prerequisite: junior status.

Writing for the Professional Artist

COMM 4211 3 cr. 3 hr. ▲

Students learn to write and think like professional artists in this writing intensive course. Students develop a docent presentation; become fluent in the written genres used by artists within their own professional medium; explore the relationships between writing and artistic production in other mediums; evaluate, interpret, and synthesize the work of others using the written and spoken word.

Organizational Communication

COMM 4220 3 cr. 3 hr. ▲

This course is designed to introduce students to contemporary concepts about organizational communication functions, the structure of organizational communication systems and organizational levels at which communication occurs. Student research and field study will consist of a communications audit of a selected organization and the analysis at the related human, hardware and software interfacing.

Prerequisite: junior status.

Communication Law

COMM 4230 3 cr. 3 hr. ▲

The course provides an introduction to communications law and media ethics that raise important issues for all students in the Communications Media department. Topics discussed in the class include copyright law, libel, censorship, cable and broadcast law, privacy and the U.S. legal process.

Prerequisite: junior status.

Media Criticism

COMM 4240 3 cr. 3 hr. ▲

In the context of film and video work, students examine several approaches to criticism including political, cultural, social, genre and feminist.

Prerequisite: junior status.

Research Seminar

COMM 4250 3 cr. 3 hr. ▲

The seminar provides an opportunity to explore and learn various research methodologies, such as archival research, content analysis and field study. The seminar is offered with various focuses, depending upon student and instructor need and interest.

Prerequisites: COMM 1105 and COMM 1120.

Advanced Professional Study

***COMM 4260 3 cr. 3 hr. ▲**

This interdisciplinary production course combines the talents of students from two or more concentrations. Students learn to work in a production team with a client to produce professional quality video, film, slide-tape, print, graphic and/or interactive materials.

Prerequisite: completion of five courses within a concentration.

Pre-Press Production

COMM 4270 3 cr. 3 hr. ▲

This course provides a bridge between design and the complex world of printing. File preparation for print reproduction will be covered in this comprehensive, advanced level course. Printing terminology, job specification, file formatting, bid writing, color proofing, trouble shooting electronic documents and mechanical press related problems are studied. Students will make a site visit to a large printing firm.

Prerequisite: COMM 3820 and COMM 3890.

Intercultural Communication

COMM 4280 3 cr. 3 hr. ▲

In this course we will explore intercultural communication through communication theory that differs from other social science disciplines. The course will equip students with tools to understand and think about intercultural communication methods so they may develop the skills to call upon in episodes of intercultural interaction. Students will work through a range of theoretical, methodological, descriptive and interpretive critical readings to reach the goal of understanding the multiple perspectives and theories of intercultural communication.

Prerequisites: COMM 1105 and COMM 1120.

Gender and Communication

COMM 4281 3 cr. 3 hr. ▲

An exploration of the relationships among communication, gender, and culture. It provides analytical tools for understanding how we create a sense of self as gendered and sexual beings, and how various forms of communication reflect and construct cultural understanding of sex and gender. Students critically explore the ways in which we all—through communication in families, schools, media, workplace and other spheres of society—create, perpetuate and/or challenge gender roles. The course also explores how gender and sexual politics are appropriated and reinvented for popular consumption.

Internship

COMM 4880 12 cr. 36 hr. ▲ ●

This full semester on- or off-campus Internship requires 15 36-hour weeks of work. Communications Media majors apply their knowledge and skills to the practical solution of communications problems. Requires approval by Communications Media Interview Committee and department chairperson. Demonstrate effective interpersonal and communication skills. Students must complete an internship qualification program in the semester prior to a planned internship. This program includes the student's presentation of a portfolio of work to be evaluated and approved by the Internship Committee and demonstration of effective interpersonal communication skills.

Prerequisites: completion of all preceding Communications Media Phases with a cumulative Communications Media Grade Point Average of 2.5 or better at the time the Application for Internship is due.

Independent Study

COMM 4901 1 cr. 3 hr. ▲
COMM 4902 2 cr. 6 hr. ▲
COMM 4903 3 cr. 9 hr. ▲
COMM 4906 6 cr. 18 hr. ▲

The Independent Study provides an opportunity for highly self-motivated students to explore areas of Communications Media not provided within the departmental curriculum. Research methodology is to be used and a written monograph is to be presented to the faculty sponsor. Approval of a faculty sponsor, consent of the advisor and permission of the chairperson is required.

Field Study

COMM 4940 3 cr. 9 hr. ▲
COMM 4950 6 cr. 18 hr. ▲

The Field Study provides an experience that permits students to develop the knowledge and skills acquired in the classroom. A portfolio of the work completed is to be presented to the faculty sponsor. Approval of a faculty sponsor, sanction of a site supervisor, consent of the advisor and permission of the chairperson is required.

Directed Study

COMM 4975 1-6 cr. ▲

Computer Information Systems

See course offerings under Business or Computer Science.

Computer Science

All Computer Science Electives must be at or above CSC 3000 level.

Introduction to Programming

CSC 1000 3 cr. 3 hr. ▲ ●

This course provides an opportunity to learn a higher-level language, to gain experience in the design, coding and utilization of computer programs and to develop simple applications using a graphical user interface. SMT

Co-requisite: Passing the Math placement exam or Math 0200.

Computer Science Basics

CSC 1010 3 cr. 3 hr. ▲ ●

Lectures and labs explore various topics in computer science. Topics include data representation, digital circuits, basic computer organization and machine language, operating systems and networking, programming languages, and algorithms and efficiency, computability, the Church-tutoring thesis, and the halting problem. SMT

Internet Communications

CSC 1050 3 cr. 3 hr. ▲ ●

The Internet plays a crucial role in the information revolution. It is used increasingly for personal and business communications, for commerce and exchange of ideas and as a source of information and entertainment. This course introduces the student to various components of the Internet such as the Web, e-mail, discussion groups, ftp and telnet. Tools and techniques for efficient Web browsing will be taught. Security issues involved in using the Internet will be discussed. Students will design simple Web pages and publish them on the Internet.

Computer Applications

CSC 1100 3 cr. 3 hr. ▲ ●

This is an introductory level study of the computer and application software techniques. This course introduces microcomputer concepts, common operating system functions, Internet, e-mail and an integrated package of application software, including word processing, spreadsheet, database and presentation development. The student learns how to construct and edit a document, spreadsheet, database and presentation using the proper tools.

Co-requisite: Passing the Math placement exam or Math 0200.

Basics of Web Design

CSC 1150 3 cr. 3 hr. ▲ ●

This course is about creating Web pages using the latest version of HTML. The course covers the basics of HTML code. Students will learn to work directly with HTML tags to create forms, frames and cascading sheets and to embed music and other multimedia.

Introduction to Spreadsheets and Databases

CSC 1300 3 cr. 3 hr. ▲ ●

This course introduces the student to spreadsheets and databases. The student becomes proficient in the use of spreadsheets and databases as well as in the use of built-in functions for business, family and others.

Co-requisite: Passing the Math placement exam or Math 0200.

Computer Information Systems

CSC 1400 3 cr. 3 hr. ▲ ●

This course is an introduction to concepts in computer information systems. Students learn how information technology is used in business. Topics covered include use of information systems in business, basics of hardware, software, networks and data management, use of productivity software, security and ethical use of information systems, business decision systems, and developing and managing information systems. A working knowledge of word processing, spreadsheet and presentation software is required. SMT

Co-requisite: Passing the Math placement exam or Math 0200, and CSC 1100 or BSAD 1700 or equivalent knowledge.

Computer Science I

CSC 1500 3 cr. 3 hr. ▲ ●

This course introduces Computer Science by using a high-level programming language. Students will be taught to design programs and implement them using object-oriented programming techniques. This course provides a solid background for further studies in Computer Science by preparing students to enroll in the more specialized high-level software courses. SMT

Prerequisite: Passing the Math placement exam or Math 0200.

Computer Science II

CSC 1550 3 cr. 3 hr. ▲ ●

This course builds on the concepts covered in Computer Science I. Topics covered include inheritance, polymorphism, recursion, advanced GUI programming, exception handling and input/output handling. Students use integrated development environment to create, compile, run and debug programs.

Prerequisite: CSC 1500.

Introduction to Electronics

CSC 1600 4 cr. 5 hr. ▲ ●

This course provides an introduction to analog circuits and modern solid-state devices, including diode rectifiers, power supply design, OP amps and oscillator circuits. Extensive laboratory work illustrates the operation and behavior of circuits, as well as the use of modern laboratory test equipment. Topics covered in the class include basic circuit analysis, semiconductor principles, diodes, power supply design, bipolar and FET transistor applications, OP AMP circuits and applications, oscillators and linear integrated circuits. Students registering for this course must also register for the accompanying lab course.

Prerequisite: Math 1300.

Digital Electronics

CSC 1650 4 cr. 5 hr. ▲ ●

This course provides a study of the design and application of both asynchronous and synchronous electronic logic circuits. Counters, registers, serial and parallel adders, and arithmetic units are included. Topics covered are Boolean algebraic simplifications; Karnaugh maps; Quine McCluskey method; combinational logic circuits; sequential logic circuits; comparison of TTL, MOS, and ECL logic families; the arithmetic unit; coding and decoding; parity detection and generators; multiplexers and programmable logic devices. Extensive laboratory work supplements the topics studied. Students registering for this course must also register for the accompanying lab course.

Prerequisite: CSC 1600.

Discrete Mathematics

CSC 1900 3 cr. 3 hr. ▲ ●

This course introduces discrete mathematics as applied to computer science. Topics covered include Boolean logic, elementary set theory, functions, relations, enumeration, proof techniques number systems and trees. (Credit is not given for both CSC 1900 and MATH 1900.)

Prerequisite: Math 1250 or Math 1300 or equivalent knowledge.

Advanced Web Design with Scripting

CSC 2150 3 cr. 3 hr. ●

Scripting is used to add programming capabilities to HTML code and to create dynamic and more interactive Web pages. Students will learn JavaScript as a scripting tool for creating Web pages. Operators, statements, functions, event handling and objects of this language will be studied. Students will learn the document, form and window objects in detail.

Prerequisite: CSC 1150 or equivalent knowledge.

Database Systems

CSC 2400 3 cr. 3 hr. ▲

This course is about design and implementation of database systems. Evolution of various database models, including hierarchical, relational and object-oriented models, and the advantages of different models are studied. Use of Structured Query Language (SQL) in relational databases is explained and applied. Students design databases applying E-R modeling and normalization techniques.

Prerequisites: CSC 1550, and CSC 1900 or MATH 1900.

Systems Programming

CSC 2560 3 cr. 3 hr. ▲ ●

This course provides the student with the fundamentals of structured programming at the systems level. UNIX is used as a base for this course. Students obtain a thorough knowledge of the C language, comfort in using the UNIX operating system and an appreciation for a systems approach to low-level programming tasks.

Prerequisites: CSC 1550 and CSC 1900 or MATH 1900.

Computer Organization

CSC 2600 4 cr. 5 hr. ▲ ●

The purpose of this course is to provide a thorough discussion of the fundamentals of computer organization and architecture and to relate these to contemporary computer design issues. After a brief review of the basic digital components used, the steps that a designer would go through in the design of an elementary systems are covered followed by a discussion of the organization and design of the central processing unit (CPU) and various control system implementations. The input/output and memory subsystems are included as is a brief discussion of multiprocessing systems, pipelining and virtual memory. Students registering for this course must also register for the accompanying lab course.

Prerequisite: CSC 1650.

Business Programming

CSC 2700 3 cr. 3 hr. ▲

This course provides students with experience in the design and coding of programs using a business oriented language. Topics covered include structured programming techniques; data, record and file design; sorting and merging of files; table handling; variable-length records; and indexed sequential access methods. File creation, updating and reporting are given special attention.

Prerequisite: CSC 1550

Web Programming with Java

CSC 3050 3 cr. 3 hr. ▲ ●

There are three aspects to Web Programming: Front-end GUI programming, back-end Web or database server programming and the network programming to connect the two. In this course, students learn to use Java classes for creating applets, for server programming and for interfacing with a database. The course also reviews advanced concepts of object oriented programming, Java's exception handling and multithreading.

Prerequisite: CSC 2560.

Operating Systems

CSC 3100 3 cr. 3 hr. ▲ ●

This course examines the internal structure and operation of operating systems with an emphasis on their design criteria and approaches. Topics covered include process management, scheduling, deadlock, memory management, virtual memory, protection and security and distributed systems. A working knowledge of a higher-level system programming language and computer data structures is assumed.

Prerequisites: CSC 2560 and CSC 2600.

Programming Languages

CSC 3200 3 cr. 3 hr. ▲ ●

This course studies the hierarchy of programming languages starting with Assembly Language. It covers general principles of languages within imperative, object oriented and functional paradigms, as well as logic programming. Students have an opportunity to learn the basic concepts and constructs of various programming frameworks and practice software design skills in languages like Ada, Lisp and/or Prolog.

Prerequisite: CSC 2560

Advanced Topics in Web Development

CSC 3250 3 cr. 3 hr. ▲ ●

State of the art tools and technologies used in developing and deploying Web pages will be studied. Server-side programming for database access will be studied. Students will create model applications used in e-commerce.

Prerequisite: CSC 2150.

Assembly Language

CSC 3300 3 cr. 3 hr. ▲ ●

Assembly language provides the means for programming a computer at the most basic machine level. In this course, we explore the fundamental operations of a modern computer system using software tools. Topics examined include numerical and character representations, microprocessor register usage, machine instructions, addressing modes, input/output processing, parameter passing, interrupt processing and simple data structure realizations on the Intel 80x86 processor.

Prerequisite: CSC 1550 or permission from the department.

Small-Scale Embedded Systems Development

CSC 3350 3 cr. 3 hr.

Small-scale embedded systems are everywhere. Students will learn about how to develop functional devices using microcontrollers and become familiar with microcontroller architecture and the various function-specific hardware modules such as timer/counters, analog-to-digital converters, pulse-width modulators, liquid-crystal displays and keypads. Hands-on projects will require the writing of device drivers and the development of a useful embedded system.

Prerequisites: CSC 1650 and CSC 2650.

Data Communications & Networking

CSC 3400 3 cr. 3 hr. ▲ ●

Data communications is a subset of telecommunications involving the transmission of data to and from computers and components of computer systems. It is concerned with the transmission of data through some medium, such as wire or fiber optic cable, and includes coverage of the telephone system, local area networks and wide area networks. Concepts of concern are error control, data codes, signal representation and modulation techniques, protocols, reliability and security. This course deals with both the hardware and software aspects of successful communication.

Prerequisite: CSC 2560.

Local Area Networks

CSC 3450 3 cr. 3 hr. ▲ ●

This course examines local area network (LAN) technology and architecture both through general concepts and practical hands-on experience. All networking fundamentals are presented based on the modular approach of the ISO standards. Topics covered include file servers, configurations and protocols, installation and management of server hardware and software, system monitoring, maintenance and troubleshooting. Due to its importance, the TCP/IP protocol will be stressed.

Prerequisite: CSC 2560.

Object Oriented Programming

CSC 3500 3 cr. 3 hr. ▲ ●

This course covers the fundamental principles of Object Oriented Paradigm. It studies the concepts of procedural and data abstraction, classes, inheritance, polymorphism, virtual functions, templates, exception handling and file manipulations. Students learn the main tools of a popular language supporting the object-oriented framework and various techniques of object-oriented design.

Prerequisite: CSC 2560.

Windows Programming with MFC

CSC 3550 3 cr. 3 hr. ▲

This course is about developing Win32 applications using Microsoft Foundations Classes and Windows API. Topics include menus, controls, dialog boxes, property sheets and document/view architecture.

Prerequisite: CSC 3500.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Microprocessors

CSC 3600 4 cr. 5 hr. ▲ ●

The course provides a detailed study of the microprocessor and its applications. Emphasis is placed on a current microprocessor, its hardware and software and its associated family of integrated circuits. Students design a microprocessor system, configuring the random access memory, the read-only memory and peripheral devices using peripheral interface adapters. Students reinforce theory with extensive laboratory work. Students registering for this course must also register for the accompanying lab course.

Prerequisite: CSC 2600.

Algorithms and Data Structures

CSC 3700 3 cr. 3 hr. ▲ ●

This course provides an introduction to modern study of computer algorithms and complex data structures. It explores the logic of algorithmic analysis and design as well as practical utility and implementation techniques. The basic ideas from Complexity Theory will help students understand the concept of efficiency of algorithms and its role in the design of algorithms. The analysis of data structures is focused on the concepts of linked list, queues, stacks and trees. Various programming techniques such as divide and conquer, dynamic programming and backtracking are presented.

Prerequisite: CSC 2560.

Systems Analysis Methods

CSC 3710 3 cr. 3 hr. ▲ ●

As an overview of the system development life cycle, this course introduces the student to the fundamental concepts and techniques of systems analysis. Classical and structured methods of systems documentation are explored as well as information gathering and reporting activities.

Prerequisites: CSC 2400 and CSC 3450.

Compiler Construction

CSC 4200 3 cr. 3 hr. ▲

The course studies the techniques involved in the analysis of source language code and the generation of efficient object code. The focus is more on the front end of the compiler (analyzer) than it is on the back end (generator). By working in small project teams, students modify an existing compiler. Topics covered in the class include language definition; lexical, syntactic, and semantic analysis; and code generation.

Prerequisite: CSC 2600.

Computer and Network Security

CSC 4350 3 cr. 3 hr. ▲

Lectures provide an introduction to the many aspects of computer and data network security. It covers fundamentals of number theory, authentication and encryption technologies, as well as some of the well-known security related topics. Various different computer and network security mechanisms and their weaknesses will be discussed.

Prerequisites: CSC 1550 and CSC 3450.

Software Engineering

CSC 4400 3 cr. 3 hr. ▲ ●

This course examines main features of software life cycle. It covers the main issues in design creation, principles of programs verification, system testing and evaluation criteria. This course provides students with an opportunity to obtain practical experience in software design using CASE tools. Students work in project teams and apply principles of software design, verification, testing and coding toward the solutions of assigned problems.

Prerequisite: CSC 2560.

Database Programming

CSC 4550 3 cr. 3 hr. ▲ ●

Many businesses, small and large, utilize user-interfaces to access databases to provide security as well as multiple user access to the databases. This course will introduce the student to software components designed for database programming in a higher-level language. Each student works on a project of applied nature that involves documenting the requirements of a database, creating the database and designing the user-interface to access the database. Working knowledge of the host language is required.

Prerequisites: CSC 2400 and permission from the Instructor.

Digital Signal Processing

CSC 4600 3 cr. 3 hr. ▲ ●

DSP has found its way into a number of applications, including communications and controls, graphics, and speech and image processing. DSP is concerned with real time signal processing where timing is of the utmost importance. This course will help students understand time and frequency domain descriptions of signals and systems. Linear time invariant systems, convolution, difference equations, and various mathematical transforms. Fourier, Fast Fourier and z-transform are introduced to describe and design both recursive and non-recursive digital filters. DSP processor fundamentals, architectures and special features will be introduced using a particular processor in a lab environment.

Prerequisite: CSC 3600 and MATH 3300.

Systems Design & Implementation

CSC 4700 3 cr. 3 hr. ▲ ●

This capstone course will emphasize the design and implementation phases of the system development life cycle using case studies. A problem solving approach will be used for students to learn strategy and techniques for dealing with complexities in information systems development.

Prerequisite: CSC 3710

Independent Study

CSC 4901, 4902, 4903 1, 2, 3 cr.▲●

The independent study provides an opportunity for highly motivated students to explore advanced areas of computer science not provided within the departmental curriculum. Approval of the faculty sponsor, consent of the advisor and permission of the chairperson are required.

Prerequisite: completion of all the required 2000 level core courses with a Grade Point Average of 3.0 or more in those courses.

Internship

CSC 4940, 4950 3, 6 cr. ▲ ●

A 3-credit on- or off-campus internship requires 12 hours of work each week for 15 weeks. Students apply their knowledge and skills to develop practical solutions to computer science or computer information systems problems. Approval by department chairperson is needed to register for this course. A written report on the work done in the format specified by departmental policy must be submitted to the chairperson to receive a grade.

Prerequisite: completion of all the required 2000 level core courses with a Grade Point Average of 3.0 or more in those courses.

Directed Study

CSC 4975 1-6 cr. ▲ ●

A course in the departmental curriculum may be offered as directed study subject to the university policies and departmental policies. Approval of the faculty sponsor, consent of the advisor and permission of the chairperson are required.

Prerequisite: completion of all the required 2000 level core courses with a Grade Point Average of 3.0 or more in those courses.

Criminal Justice

Additional course descriptions for the Criminal Justice major can be found in Human Services, Math, Political Science, and Sociology.

Introduction to Criminal Justice

CJ 2000 3 cr. 3 hr. ▲ ●

This course provides the student with an overview of the structure and organization of the criminal justice system. Emphasis is placed on the examination of the functions and decision processes of those agencies that deal with the management and control of crime and criminal offenders. The course includes didactic presentations, assigned readings, class discussions, visiting practitioner lecturers and small group discussions.

Principles and Practices of Law Enforcement

CJ 2050 3 cr. 3 hrs ▲ ●

Students will examine the nature, history, role, operations and management of law enforcement agencies. Additional topics to be explored include police powers, investigations, use and abuse of police force, police corruption, crime prevention and the future of policing.

Prerequisite: CJ 2000

Introduction to Legal Process

CJ 2270 3 cr. 3 hrs ▲ ●

See POLS 2270 Introduction to Legal Process.

Women in Criminal Justice

CJ 2450 3 cr. 3 hr. ▲

This course will examine the involvement of females in the criminal justice system, as victims, offenders, workers and professionals. Female criminality will be explored from varied perspectives. Students will undertake a systematic examination of the issues, biases and problems affecting the girls and women involved in this system, with attention focused on the effects of these factors on them, their relationships and their families.

Prerequisite: CJ 2000

Correctional Law

CJ 2500 3 cr. 3 hrs. ▲

Since the 1960s law has become an increasingly important accountability mechanism for corrections. Court decisions shaped the policies and practices in corrections institutions and, in some states, helped to transform prisons and jails into new organizational entities. This course seeks to help students understand how law affects the corrections environment, as well as examining current issues in corrections.

Prerequisite: CJ 2000

Criminal Law

CJ 2550 3 cr. 3 hr. ▲ ●

The focus of this course is the study of the general principles of criminal law. The approach adopted in this course involves the use of the text to explain general principles and their application to specific crimes followed by cases that apply the general principles to the facts of the specific cases. The students will be encouraged to formulate their own views regarding the application made by the court it its opinion on the one hand and, on the other, they will also be encouraged to understand the principles and definitions in order to apply them. Students will be required to act as legislators, judges, juries, defense attorneys and prosecutors in order to see the principles and definitions from all perspectives. I

Prerequisite: CJ 2000.

Juvenile Justice

CJ 2600 3 cr. 3 hr. ▲ ●

The course is designed to develop student awareness of past and contemporary philosophies, practices and paradoxes of juvenile justice. The course examines the programmatic efforts designed for juveniles in trouble with the law and focuses on the relationships between the components of this system of justice. The content of the course may be supplemented by current journal research, lectures and panel discussions by practicing professionals, and/or a field-based class.

Prerequisite: CJ 2000.

Correctional Theory and Practice

CJ 2650 3 cr. 3 hrs. ▲ ●

Corrections is the branch of the criminal justice system comprised of the programs, facilities and organizations responsible for the management of individuals who have been accused or convicted of criminal offenses. This course examines the history, operation, structure and clientele of modern correctional institutions and assesses the problems confronting them. The course also explores the relationships between corrections and social, political and economic trends within society.

Prerequisite: CJ 2000

Ethics in Criminal Justice

CJ 2651 3 cr. 3 hr. ▲ ●

This course will acquaint the student with the theoretical foundations essential to ethical decision making by introducing students to ethical theory, major ethical belief systems and ethical issues in criminal justice. Students will develop awareness of and explore the major ethical issues/questions specific to each of the criminal justice subsystems; in addition, the student will become familiar with and examine the ethical challenges and dilemmas that confront criminal justice professionals across the U.S. system of justice. Strategies for responding to situations are considered and models of ethical decision making are examined.

Prerequisite: CJ 2000.

Domestic Terrorism and Hate Crime

CJ 3000 3 cr. 3 hrs ▲

From the Ku Klux Klan to Timothy McVeigh, a few Americans have sought to achieve their ends through violent action. This course introduces students to the variety of extremist groups within the United States and examines their history, nature, extent and dangerousness. It also explores hate crime, a relatively new responsibility of the criminal justice system. We will look at the social construction of hate crime and issues concerning its enforcement. B

Prerequisite: CJ 2000.

Victimology

CJ 3053 3 cr. 3 hr. ▲ ●

In this course, students will learn: the definition of victimology; of victimology's historical perspective and the startup of the victims' rights moveme3nt; of the different types of victimizations; about the two main methods of measuring crime in America; of the roles and responsibilities of the many principals within the criminal justice system as they relate to victims' rights; and, learn about victim services and assistance in responding to criminal victimizations.

Prerequisite: CJ 2000.

Organized Crime and Youth Gangs

CJ 3100 3 cr. 3 hrs. ▲ ●

This course offers an overview of the nature and extent of organized crime, as well as the impact of organized crime on U.S. society, both in terms of economy and politics. The course also takes up contemporary youth gangs in the United States, concluding with policies and programs addressing gangs, including law enforcement and prevention and intervention efforts. B

Prerequisite: CJ 2000

Criminal Justice Research Methods

CJ 3130 3 cr. 3 hrs ▲ ●

This course provides students with an understanding of how researchers use scientific methods to frame and explore issues important in criminal justice. The course focuses on methods of measuring crime, data collection, research design, sampling and probability, survey and questionnaire design, methods of observation and written communication of results. Q

Prerequisites: CJ 2000 and MATH 1700.

Criminal Justice Data Analysis

CJ 3140 3 cr. 3 hrs. ▲ ●

This course explores the ways in which researchers use data analysis in criminal justice research. The course focuses on methods of analyzing crime, using secondary data such as the Uniform Crime Reports, National Crime Victimization Surveys, NIBRS and other frequently-used datasets. The student is introduced to computer software packages, such as SPSS, to analyze data. Students will evaluate critically several studies, including their design, analysis of data and conclusions. Q

Prerequisites: CJ 2000 and CJ 3130 and MATH 1700.

Program Evaluation

CJ 3150 3 cr. 3 hr. ▲ ●

Perhaps the most important question for persons and institutions in the helping and public service professions is whether their efforts are accomplishing their goals. Program evaluation is the process of determining how well a program, treatment, or other intervention designed to help ameliorate social or personal problems, including but not limited to crime and delinquency, or otherwise enhance the quality of life and/or the overall well-being of society, has accomplished its goals. This process requires attention to the interests and desires of multiple segments of society who have a stake in the outcome of the intervention as well as to the principles of scientific methodology. In this course students will learn, among other things, the importance of evaluating not only how well an intervention worked but how well it was implemented in the first place, the value of using the results of evaluations to design new programs or improve existing ones, how to conduct a program evaluation, how to evaluate the validity of a program evaluation, and, perhaps most importantly, the role of program evaluation in designing good public policy.

Prerequisites: CJ 2000, PSY 1100, MATH 1700, CJ 3130, SOC 3130, HMSV 2050 or PSY 2000.

White Collar and Corporate Crime

CJ 3200 3 cr. 3 hrs. ▲ ●

This course introduces students to a variety of topics and issues in the area of white-collar and corporate crime. It examines and contrasts the treatment corporate and white-collar offending by the criminal justice and regulatory justice systems. It looks at definitional issues, the nature and extent of white-collar crimes, crime types, case studies and the etiology of offending. B

Prerequisite: CJ 2000.

Community Policing

CJ 3215 3 cr. 3 hrs. ▲ ●

This advanced course in policing takes an in-depth look at the philosophy, history, and practice of community policing and other contemporary policing strategies, such as problem-oriented policing and COMPSTAT; critically examines research findings regarding the effectiveness of contemporary strategies compared with traditional strategies; and places each major policing strategy into its context within the overall picture of modern American policing.

Prerequisites: CJ 2000 and CJ 2050.

Psychology of Crime

CJ 3242 3 cr. 3 hr. ▲ ●

This course complements Sociology 2750, Criminology. While Criminology focuses on the social context of crime and criminals, Psychology of Crime takes the biosocial perspective, examining the causes and effects of crime on the biological, psychological, and social levels, as well as the interactions among those levels. Students learn, among other things, biological, psychological, family, neighborhood, and societal risk factors for crime; how criminals think; and how the tendency to commit delinquent and criminal acts develops in the individual.

Prerequisites: CJ 2000 and PSY 1100.

Crime & Delinquency Prevention

CJ 3250 3 cr. 3 hr. ▲ ●

How can juvenile delinquency and adult crime be prevented? It's not easy, but it's not impossible. This course focuses on interventions (steps taken to facilitate change, also known as "programs" or "treatments") that address some of the psychological and ecological causes of crime. While larger social forces are also important, they are generally out of the control of individuals or agencies seeking to accomplish tangible, measurable results. As we shall see, the focus on individuals and communities has achieved considerable success. Many interventions do indeed produce significant and lasting decreases in crime, and can be very cost-effective.

Prerequisites: CJ 2000 and CJ 3150.

Community Based Corrections

CJ/HMSV 3300 3 cr. 3 hr. ▲

This course examines the philosophy of community-based corrections from historical, legal, social and psychological perspectives. The essence of probation and parole and their administration are considered in conjunction with criminal justice issues and practices that affect the court's decision to allow community sanctions and supervision in lieu of incarceration. Contemporary trends and alternatives to traditional supervision are explored as well. A supervised practicum (20 hours per semester) is encouraged.

Prerequisite: CJ 2000.

Crime in the Media

CJ 3333 3 cr. 3 hrs. ●

Ordinary Americans get much of their information about crime and the criminal justice system from mass media. Unfortunately, this information is full of distortions, leading to policies that themselves are based on these distortions that have very little chance of accomplishing their purposes. This course is designed to help students identify these distortions and their consequences, compare and contrast the public image and reality of crime, and consider the implications of these findings for criminal justice policy and practice.

Prerequisite: CJ 2000.

International Terrorism

CJ 3510 3 cr. 3 hrs. ▲

See POLS 3510 International Terrorism.

Prerequisite: CJ 2000. Credit is not awarded for both CJ 3510 and POLS 3510.

Colloquium

CJ 3750 3 cr. 3 hrs. ▲ ●

This course seeks to integrate the student's earlier work on theories of crime, types of crime, prevention and program assessment, while honing the student's research and writing skills. The course involves intensive writing exercises, critical reading exercises, and critical analysis of research projects.

Prerequisite: CJ 2000.

Internship in Criminal Justice

CJ 4970 6 cr. ▲
CJ 4980 9 cr. ▲
CJ 4990 12 cr.

Internship is the structured academic experience that allows senior CJ students who have successfully met eligibility criteria, to integrate and apply the skills and theory of the discipline in a field-based setting. Such an experience helps the student develop an understanding of the effects of administrative practices and governing policies on the ability to carry out the responsibilities of their field placement. Students participate in Internship the supervision of qualified professionals in CJ organizations. In addition to the field experience, students participate in a weekly seminar held by the university's supervising professor. Here, students share their experiences and develop a heightened awareness of their roles in the organizations in which they are functioning.

Students must have completed their prerequisites at least one semester before taking Internship and must pre-register with the Field Placement office in the beginning of the semester prior to the semester before they plan to enter an agency, (for example, students planning a fall placement must have completed their prerequisites by the end of the previous fall semester and pre-register with the Instructor early in the previous spring.)

Students must meet CJ Internship eligibility requirement as determined by the Department of Behavioral Sciences.

Sex, Race and the Constitution
POLS 2550 3 cr. 3 hr. ▲

Criminal Procedure: The Right of the Accused
POLS 2700 3 cr. 3 hr. ▲

Constitutional Law
POLS 3500 3 cr. 3 hr. ▲

Crisis Intervention
HMSV 2400 3 cr. 3 hr. ▲

Abuse and Neglect within the Family
HMSV 3500 3 cr. 3 hr. ▲

Applied Statistics
MATH 1700 3 cr. 3 hr. ▲ ●

Criminology
SOC 2750 3 cr. 3 hr. ▲

Juvenile Delinquency
SOC 2760 3 cr. 3 hr. ▲

Law and Society
SOC 3500 3 cr. 3 hr. ▲

Abnormal Psychology
PSY 2350 3 cr. 3 hr. ▲

Early Childhood, Elementary, and Middle School Education

Special Education appears alphabetically under "S".

Language Arts in Early Childhood Education
EDUC 2200 4 cr. 5 hr. ▲

This course presents a timely and concise summary of important issues confronting the teacher and learner when developing a mastery of language arts in the Early Childhood Setting. The focus is on methodology related to the teaching of listening, speaking, reading and writing. A pre-practicum is required.

Foundations of Inclusive Education
EDUC 2300 3 cr. 3 hr. ▲ ●

This course gives an orientation on the developmental and theoretical philosophy, goals, and laws of our educational system. Students consider educational procedures and instructional strategies used in facilitating the development of the child (early childhood, elementary, special education, middle school). Students demonstrate competencies in the areas of lesson plan design and evaluation. Pre-practicum required. A portfolio assessment (TK20) is introduced.

Prerequisite: PSY 1100 or PSY 2200.

Pre-Kindergarten Clinical
EDUC 2500 4 cr. 5 hr. ▲

This course is designed for the student of Early Childhood Education who is interested in exploring early childhood prior to the kindergarten and public school experience. The students investigate a variety of models and curriculum programs designed for infants, toddlers, and preschool-aged children. Further the student experiences a wide variety of pre-kindergarten settings and explores the systems designed to create, administer and evaluate such programs.

Developmentally Appropriate Practices and Programs for Young Children
EDUC 2600 3 cr. 3 hr. ▲ ●

In line with federation and national legislation and law, candidates use a developmental approach in the areas of physical, emotional, social, creative, and cognitive growth to create appropriate environments and learning experiences to meet the needs of all children, typically progressing and those with special needs. Strategies for family and community involvement are explored.

Prerequisite for all Education Department Majors:
Successful Passage of Stage One Education Unit Review.

Literacy in the Pre-K to Grade 8 Classroom
EDUC 2630 3 cr. 3 hr. ▲ ●

This course looks in depth at the reading process and how children come to know and embrace literacy. Emergent literacy, reading strategies, and ways of developing both are examined, as are current approaches to the teaching of reading. Candidates are made aware of informal assessment measures for classroom use. A pre-practicum (15 hours) is required.

Prerequisite for all Education Department Majors:
Successful Passage of Stage One Education Unit Review.
Special Education Majors Additional Prerequisite: SPED 3401,

Language Arts: Theory to Practice PK-6
EDUC 2640 3 cr. 3 hr. ▲ ●

Candidates explore the research base for the teaching of language arts in PK-6 grades (reading, writing, speaking, viewing, listening, and thinking across diverse populations) in order to plan, teach, and evaluate their own teaching in reading/language arts. Current trends, research, and state and national standards will be included. A 15-hour field experience helps develop skills.

Prerequisite: MTEL Literacy and Communication Passing Score.

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Language Arts in Education
EDUC 2640 3 cr. 3 hr. ▲

This course provides students with an introduction to the nature of language and language growth. Emphasis is placed on the meaning and importance of language arts as well as on the characteristics of elementary and middle school age children, which affect and are affected by the language arts program. Elements of writing, speaking, listening, and reading are stressed. A pre-practicum is required.

Prerequisite for all Education Department Majors:
Successful Passage of Stage One Education Unit Review.

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Parent-Child Relations in Education
EDUC 2700 3 cr. 5 hr. ▲

This course explores the role of the parent in the development of the child and how the parent relates to the educational system. This course stresses awareness of how parents stimulate the growth of behavioral trends in their children and how they can be useful as resources to improve the child's educational environment.

Prerequisite: EDUC 1600 or PSY 2210.

Investigations in Science & Social Studies in Early Childhood Education
EDUC 2850 3 cr. 3 hr. ▲ ●

This course emphasizes the development and demonstration of instructional techniques and materials in science, and social studies, which are appropriate for heterogeneous groups of young children. Curriculum standards and developmentally appropriate practices will be emphasized,with particular attention paid to the use of on-going assessment to gauge progress. Candidates will explore learning needs of young children with and without disabilities.

Prerequisite for all Education Department Majors:
Successful Passage of Stage One Education Unit Review.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

The Art of Teaching Social Studies and Writing
EDUC 2870 3 cr. 3 hr. ▲ ●

This course provides teacher candidates with the knowledge and methods to teach students social studies using a literacy-based approach. Candidates will learn about the interdisciplinary integration of history and the social sciences and how to engage students in literacy activities, predominately writing, in order to help students acquire the knowledge and processes of learning necessary to become active citizens.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review.

Caring for Infants and Toddlers
EDUC 2900 4 cr. 6 hr. ▲

This course assists students in the development of attitudes, knowledge and skills important to understanding and supporting the interactions of infants and toddlers.

The Arts I: Inspiration (Module 1)
EDUC 2910 1 cr. 1 hr. ▲ ●

This course examines theory and research involving creativity, the creative process and creative thinking and problem-solving skills. This course also considers the elements, principles, methods, and materials of the arts and their relationship to core curriculum subjects. Activities are designed to enhance creativity and develop an understanding of the historical and cultural contexts of the arts.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review.

The Arts II: Imagination (Module 1)
EDUC 2920 1 cr. 1 hr ▲ ●

This course emphasizes development of skills and understanding of creating, performing, and responding within and through the arts. Developing personal creativity is explored and reflected on so that teacher candidates can model techniques and utilize strategies in their future classrooms. Understanding how to use a variety of assessment methods to evaluate what students know and are able to do is also investigated.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review.

The Arts: Integration
EDUC 2930 1 cr. 1 hr. ▲ ●

This course explores an interdisciplinary approach to teaching and learning. Opportunities for teacher candidates to make connections among the arts and with other disciplines within core curriculum are experienced. The course focuses on an authentic field-based component with children, *Invitation to the Arts*. This collaborative community experience involves planning, implementation, and assessing developmentally appropriate integrated arts activities.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review. And EDUC 2970 or EDUC 2920

Assessment for Instruction
EDUC 2970 3 cr. 3 hr. ▲

Candidates understand and use formal and informal assessment strategies to plan, evaluate, and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of all children in today's schools in a fair and equitable manner, emphasizing the relationship between research and practice.

Prerequisite: Successful passage of Stage One and Education Unit Review.

Middle School Concept
***EDUC 3070 3 cr. 3 hr.** ▲

This course introduces students to the historical development, philosophy, and the competencies needed to teach in the middle school. Pre-practicum required.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review.

Curriculum and Instruction in the Middle School
***EDUC 3300 3 cr. 3 hr.** ▲

This course introduces teacher candidates to curriculum development, instructional competencies and appropriate goals and objectives for the middle school. A field-based experience is required.

Prerequisite for all Education Department Majors: Successful Passage of Stage One Education Unit Review.

Science in Education
EDUC 3440 3 cr. 3 hr. ▲ ●

The course covers contemporary thinking, practices and research in the teaching of science to elementary school students. Emphasis is on providing innovative hands-on experiences for students. The course will also use appropriate themes to integrate science with other subjects and teach methods that cater to the needs of students in inclusive classrooms.

Prerequisite: BIOL1000 or 1100 Life Science I or II, PHYS1100 or 1200 Physical Science I or II, Successful Passage of Stage 1 Education Unit Review.

Teaching Math Effectively
EDUC 3480 3 cr. 3 hr. ▲ ●

This course will examine how children develop an understanding of mathematical concepts as well as how they develop mathematical skills. Teacher candidates will learn effective methods and will explore materials, including manipulatives, math trade books, and math games, used to teach mathematics to elementary students. This course will be taught using a problem-solving approach.

Prerequisites: Candidates must have completed the mathematics course requirements for their program of study. Prerequisite for all Education Department Majors: Successful Passage of Stages One and Two Education Unit Review.

Using Computers in Classrooms
EDUC 3700 3 cr. 3 hr. ▲

Teacher candidates examine the philosophy, theory, and application of computers in classrooms. A significant portion of class time is devoted to hands on experiences with computers. These experiences include programming in text and graphics mode, introducing and using LOGO, using printers, using the Internet for research, integrating computers and other technologies in teaching content area subjects, developing programs designed to enhance the learning abilities of children, and evaluating educational software. Prior experience using computers is not assumed. Q

Onsite Immersion Field Experience
EDUC 3740 3 cr. 3 hr. ▲ ●

This course is taken in conjunction with methods courses required for licenses in Early Childhood, Elementary, Middle School, and Special Education and facilitates the linking of university coursework to an intensive field-based experience comprised of 150 hours in a classroom over the course of a semester (approximately 10 hours weekly). On-site supervising practitioners (mentors) guide, support and evaluate candidate performance throughout the experience. These mentors are selected based upon their license and their proven skills in their area of license.

Prerequisite for all Education Department Majors: Successful Passage of Stages One and Two Education Unit Review & Passage of appropriate MTEL exams.

Teaching Math Effectively
EDUC 3800 3 cr. 3 hr. ▲

Participants investigate methods and materials used in PreK-6 school programs. Teacher candidates development essential mathematical concepts and skills that they will use as PreK-6 classroom teachers. This course includes information on how children develop knowledge about mathematical concepts. Participants will understand and be able to use different strategies to explain the meaning of mathematical concepts.

Prerequisites: Successful passage of Stage One and Two Education Unit Review.

Introduction to Bilingual Education
EDUC 4150 3 cr. 3 hr. ▲

This course provides an overview of the theory, research and practice of bilinqual education. Historical constructs, current theories, and the philosophy of bilingual biculturalism will be emphasized. Basic concepts of bilingualism, state, and nation initiatives, politics and legislative mandates regarding bilingual education will be discussed. Familial, cultural, developmental and diverse learning abilities as they relate to the bilingual children will also be explored.

Theories of Language and Second Language Acquisition

EDUC 4200 3 cr. 3 hr. ▲

The course introduces current theoretical models of language acquisition focusing on literacy development and developing language skills. It is designed to provide students with an overall understanding of the importance of language development and language acquisition as seen in the education environment. Issues regarding first and second language development will be addressed. Students will focus on how theory and research relate to language instruction.

Bilingual Teaching Methods and Strategies

EDUC 4300 3 cr. 3 hr. ▲

This course introduces students to the various theories and methods of teaching children from diverse linguistic backgrounds. The emphasis will be placed on approaches and methodologies in teaching both English and the child's native language. Teaching strategies for supporting language skills, assessment approaches and evaluation procedures to determine the needs of bilingual students will be provided. Children with diverse learning abilities within the bilingual setting will also be emphasized.

Assessment and Evaluation of Bilingual Programs

EDUC 4400 3 cr. 3 hr. ▲

This course is designed to explore the assessment and evaluation systems in bilingual education programs. The focus will be on the federal, state and local educational policies and assessment practices of students in terms of language acquisition, language skills and content knowledge, as well as the evaluation of curriculum materials and teaching methods. Student progress, monitoring, developing and designing authentic assessment approaches and creating portfolios, as well as previewing, analyzing, and evaluating current bilingual assessment instruments will be included.

Bilingual Practicum

EDUC 4500 3 cr. 3 hr. ▲

The practicum is designed for student teachers preparing for their certification, Teacher of Transitional Bilingual Education, Elementary Provisional with Advanced Standing. The students will be placed in bilingual classrooms at various grade levels (K-third grade) where they will be observing, assisting and teaching under the supervision of a cooperating teacher. The students will also be attending, with their university supervisor regularly scheduled seminars (see Bilingual Seminar) in which both Spanish and English will be presented.

Collaboration& Communities

EDUC 4550 3 cr. 3 hr. ▲ ●

This course addresses collaboration and consultation in inclusive schools for teacher candidates in the education department. It also addresses building community in schools through theories of teaching and social supports. Lastly, a focus on professional and family relationships is explored through a family systems framework.

Prerequisite: Successful Passage of Stage Two Education Unit Review and Concurrent enrollment in student teaching.

Bilingual Seminar

EDUC 4600 1 cr. 1 hr. ▲

The Bilingual Seminar is a complement and supplement to the Student Teaching Practicum in the bilingual classroom setting. Students will investigate the diversity of bilingual classroom settings, learning environments, curriculum approaches, teaching methodologies and teaching strategies as they relate to the bilingual child. Observation, journal writing and curriculum presentations and evaluations will be required.

Introduction to Learning Disabilities

***EDUC 4780 3 cr. 3 hr. ▲**

This course includes a study of some of the causes of school learning disabilities at the elementary level. Specific techniques and remediation exercises are discussed.

Prerequisite: Successful Passage of Stage Two Education Unit Review

Practicum I and II in Early Childhood Education

EDUC 4862, 4863 6 cr. ▲

For the Student Teaching Practicum in Early Childhood, teacher candidates are assigned to cooperating schools for a semester of student teaching.

Prerequisite: Successful Passage of Stage Two Education Unit Review

Practicum in Elementary Education I and II

EDUC 4882, 4883 6 cr. ▲

Teacher candidates are assigned to cooperating elementary schools for a semester of student teaching.

Prerequisite: Successful Passage of Stage Two Education Unit Review

Practicum in Middle School Education I and II

EDUC 4885, 4886 6 cr. ▲

Teacher candidates are assigned to cooperating middle schools for a semester of student teaching.

Prerequisite: Successful Passage of Stage Two Education Unit Review

Independent Study in Education

EDUC 4903 3 cr. ▲

This course provides teacher candidates in early childhood, elementary and secondary education with the opportunity to do research with staff guidance in a problem in education. The course is limited to juniors and seniors.

Prerequisite: permission of Department.

Directed Study

EDUC 4975 1-6 cr. ▲

Special Education Courses appear under S.

Economics

Introduction to Economics for Non-majors

ECON 1050 3 cr. 3 hr. ▲

This course surveys the field of economics without the technical sophistication of a principles course. The emphasis is on real problems of competition and growth with examples of concepts drawn primarily from the experience of the U.S. economy in a global perspective. CTW

Principles of Economics: Macroeconomics

ECON 1100 3 cr. 3 hr. ▲ ●

This course is a study of the theory of employment, income and growth. Stabilization policy and current problems in American capitalism are emphasized. CTW

Prerequisite: satisfactory completion of the University Mathematical Readiness requirement.

Principles of Economics: Microeconomics

ECON 1200 3 cr. 3 hr. ▲ ●

Students examine the theory of the consumer and the business firm in this course. Efficiency in the allocation of resources is examined in four different market structures: pure competition, pure monopoly, monopolistic competition and oligopoly. CTW

Prerequisite: satisfactory completion of the University Math Readiness requirement.

Consumer Economics

ECON 1300 3 cr. 3 hr. ▲

This course emphasizes theories of consumption and economic functioning with emphasis on demand, consumer problems, standards of living, policies for protecting consumers and expanding consumption.

U.S. Economic History

ECON 2140 3 cr. 3 hr. ▲ ●

This course will take a panoramic view of the economic history of the United States, surveying the course of U.S. history from the early European settlement of the 1600s and 1700s up until the contemporary age of globalization, all from the perspective of and with an emphasis upon the economic matters that informed that history. CTW

Industrial Organization

ECON 2300 3 cr. 3 hr. ▲

This course integrates theory, empirical studies and case studies to analyze the effects of government regulations on the structure and organization of U.S. business firms. Several cases of antitrust legislation are studied. In addition, the course shows how political and economic issues affect industrial organization.

Prerequisites: satisfactory completion of the University Mathematical Readiness requirement and ECON 1200.

Money and Banking

ECON 2400 3 cr. 3 hr. ▲ ●

This course focuses on the role of money, credit and banking in the American economy. Special emphasis is placed on the applicability of monetary policy to the problems of economic stability.

Prerequisite: ECON 1100.

Human Resource Economics

ECON 2450 3 cr. 3 hr. ▲

Labor market and employment analysis are the focus of this course, which covers the structure of labor markets, the education and training of the labor force, and manpower programs. The serious problems of unemployment, underemployment, discrimination and barriers to job entry are also discussed.

Prerequisites: ECON 1200 or ECON 1250.

Economic Development

ECON 2500 3 cr. 3 hr. ▲

This course examines the problems of less developed countries. Topics of discussion include population, income growth, capital formation, unemployment, foreign investment and aid, the role of government and international economics.

Prerequisite: ECON 1100.

Urban Economics

ECON 2550 3 cr. 3 hr. ▲

This course is a historical and economic explanation of the growth of cities as well as a theoretical analysis of their location, form and economic structure. Current urban problems are also discussed.

Prerequisites: ECON 1100, ECON 1200 or ECON 1250.

Public Finance

ECON 2600 3 cr. 3 hr. ▲

This course studies the principle of governmental expenditures and revenues. Attention is also devoted to the problems of public debt, fiscal policy and inter-governmental fiscal relations, particularly in reference to the United States.

Prerequisites: ECON 1200.

History of Economic Thought

ECON 3000 3 cr. 3 hr. ▲

Within the framework of understanding the relationship between history and economic thought, this course covers the work of the great economists. Starting with the roots of economic thought in the works of the mercantilists and physiocrats, the course turns to the giants in political economy, including Adam Smith, David Ricardo, Karl Marx, Alfred Marshall and J. M. Keynes.

Prerequisites: ECON 1100 and ECON 1200.

International Economics

ECON 3550 3 cr. 3 hr. ▲

This course explores the theories of international trade and their links to theories of economic development and growth. Major current topics in the international economy, including economic competition among countries, debt problems in the Third World and North-South relations, are treated as practical issues against which the theories can be tested.

Prerequisites: ECON 1100, ECON 1200.

International Finance

ECON 3600 3 cr. 3 hr. ▲

The course considers the theory and practice of financial management by governments, corporations and individuals in a changing international monetary environment. The course also discusses the influence of central governments, central banks, and international monetary institutions on interest rates, exchange rates, capital flows and financial stability.

Prerequisites: ECON 1100, ECON 1200.

Intermediate Macroeconomics

ECON 3650 3 cr. 3 hr. ▲

As a second course and more advanced treatment of macroeconomics, this course provides a detailed examination of major topics in macroeconomics. Topics of discussion include theories of consumption, investment, and growth recession, as well as efforts by the government to stabilize the economy through fiscal, monetary, or other measures. This course introduces the Keynesian, neo-classical and Marxian models of the macroeconomy.

Prerequisites: ECON 1100, ECON 1200.

Intermediate Microeconomics

ECON 3660 3 cr. 3 hr. ▲

This course analyzes consumer and producer equilibrium in a market economy. The behavior of firms in the four market structures and the behavior of firms and individuals in input markets is examined. Applications of economic theory to concrete economic problems are emphasized.

Prerequisites: satisfactory completion of the University Mathematical Readiness requirement, ECON 1200.

Econometrics

ECON 3700 3 cr. 3 hr. ▲

This course is an introduction to econometric methods, statistical inferences and testing hypotheses. Model building techniques and their theoretical justifications are presented and evaluated in terms of their performance.

Prerequisites: ECON 1100, ECON 1200, MATH 2200, MATH 2800 or permission of instructor.

Independent Study in Economics

ECON 4900 3 cr. 3 hr. ▲

The Independent Study is open to students who have the permission of the supervising instructor and the department. Course of study, meetings, and credit are arranged with approval.

Internship in Economics

ECON 4940 12 cr. 3 hr. ▲

The Internship provides work experiences in private or public firms. Students acquire skills useful to professional economists.

Prerequisites: junior or senior standing, 3.00 Econ. cum, or permission of internship coordinator.

Directed Study

ECON 4975 1-6 cr. ▲

English

Basic College Writing

ENGL 0100 3 inst. cr. 3 hr. ▲

This course studies the process of writing as well as sentence arrangements and punctuation patterns in Edited American English. Credits do not count towards graduation.

Writing Skills Workshop

ENGL 1000 1 cr. 3 hr. ▲

An intensive study of the basic writing skills. This course cannot be taken simultaneously with Basic College Writing (ENGL 0100), Writing I or II (ENGL 1100, 1200). The class may be taken three times for one credit per semester.

Reading Improvement I

***ENGL 1010 1 cr. 3 hr. ▲**

Individualized reading programs are tailored to meet the particular needs of each student. Students experiencing difficulty in understanding what they read engage in programs stressing comprehension skills. Students with good comprehension but with slow reading rates receive assistance in acquiring skills to at least double their speed. Additionally, all students are given instruction in reading at different rates for different purposes.

Reading Improvement II

***ENGL 1020 1 cr. 3 hr. ▲**

This course is a continuation of Reading Improvement I.

Advanced Topics in Reading

***ENGL 1030 1 cr. 3 hr. ▲**

A continuing third-semester reading enhancement course.

Writing I

ENGL 1100 3 cr. 3 hr. ▲ ●

Writing I provides the undergraduate student with the foundation necessary for critical thinking through academic and other professional writing. Students will cultivate the skills of argumentation, uses of evidence, analysis, close reading of texts, and revision as essential elements of the college-level writing process. ART

Writing II

ENGL 1200 3 cr. 3 hr. ▲ ●

Expanding upon the argumentative and analytical emphases of Writing I, Writing II will foster research-based composition. In Writing II, students will demonstrate in prose their knowledge of rhetoric, employ a variety of research methods, and become familiar with latest information technologies. ART

Dimensions of Literature

ENGL 1300 3 cr. 3 hr. ▲ ●

Students are introduced to the three principal literary genres: poetry, fiction, and drama. In this course, students will read a number of poems, plays, stories, and novels. These works will cover a broad historical range, and will include both Western and non-Western examples. The emphasis in this course will be the formal conventions of each genre, and the specific ways in which literary forms and technique create meaning. This course can also satisfy the Writing II requirement. LIT

English Electives

PREREQUISITE FOR ALL ENGLISH ELECTIVES:
ENGL 1100 Writing I and ENGL 1200 Writing II

American Literature I: Age of Exploration to the Civil War

ENGL 2000 3 cr. 3 hr. ▲ ●

The significant texts of American literature from early Native-American oral narratives to Civil War texts in a variety of genres, including poetry, fiction, sermons, journals, letters, and other historical documents are surveyed. We examine how and why certain issues (such as American identity, Puritanism, cultural conflict, gender and racial equality) recur and evolve throughout early American literature. ART, LIT

American Literature II: Civil War to the Present

ENGL 2100 3 cr. 3 hr. ▲

This course surveys all genres of American writing from 1865 to the present, tracing the effects of social, economic, scientific and artistic turmoil on authors and their works. We explore the interconnections among succeeding eras of American literature: Realism, Modernism and Post-Modernism. ART, LIT

British Literature I: Beowulf to Milton

ENGL 2200 3 cr. 3 hr. ▲

This course surveys English literature from the first extant manuscript materials through the early 17th century. We trace themes, images and literary forms that concerned British writers for half a millennium. ART, LIT

British Literature II: Pepys to Shelley

ENGL 2210 3 cr. 3 hr. ▲

This course explores the changing form of English literature during the most tumultuous period of English history, encompassing the civil wars and leading up to the Industrial Revolution. Selections include writings by Aphra Behn, Dryden, Swift, Pope, Gay, Anne Finch, and Equiano in the Neo-classical age, and Wordsworth, Charlotte Smith, Coleridge, Shelley, Keats, Byron and Mary Shelley in the Romantic age are explored. ART, LIT

British Literature III: Brönte to Rushdie

ENGL 2220 3 cr. 3 hr. ▲

This course surveys British writers from the Victorian era to the present, tracing their responses to the revolutionary changes in art, music, science and social and economic classes. Representative authors include Dickens, Eliot, Trollope, Barrett-Browning, Wilde, Shaw, Woolf, Joyce and Beckett, authors whose depiction of human nature challenged contemporary concepts of self and society. ART, LIT

Literature and Disability

ENGL 2300 3 cr. 3 hr. ▲ ●

This course examines individual, family and societal images of disability through autobiography, biography, fiction, poetry and children's literature. Students will explore themes around the disability experience using reflective writings, class discussions and activities. ART, LIT

Script Writing

ENGL 2320 3 cr. 3 hr. ▲

This basic course in script writing for film, television and multi-image productions includes information on the preparation of proposals, treatments, storyboards and scripts. Script formats include documentary, educational, corporate and dramatic film/video writing.

(Credit is not given for both ENGL 2320 and COMM 2320.)

Literature and Film

ENGL 2330 3 cr. 3 hr. ▲ ●

This course involves the critical study of literature and film as means to convey narratives. The conventions of various literary genres and types of films will be considered. Special attention is paid to the adaptation of novels and stories for the screen. Students study a dozen or more motion pictures in depth and compose six to eight critical essays. ART, LIT

World Literature I

ENGL 2400 3 cr. 3 hr. ▲ ●

This course presents a selection of major works from around the world, from ancient/classical traditions up to the 16th century. We examine shifts from oral to literate transmissions of various genres, including wisdom literature, epic and lyric poetry, drama, and narrative. Focus is on the Judeo-Christian and Greco-Roman foundations of Western literature, and on the Confucian, Hindu/Sanskrit, Buddhist, and Islamic underpinnings of literary traditions in Asia and the Middle East. The course examines the multiple, equally valid ways that different cultural and literary traditions respond to human experience. ART, GDAN, LIT

World Literature II

ENGL 2500 3 cr. 3 hr. ▲ ●

This course examines a selection of major works from the mid-17th century to the present. We cover a wide span of cultures, narratives and genres from the onset of modernity to the present, as we move from the literatures of China to Europe and modern Japan, South Asia and other locales. By setting up various cultures in conversation with each other, students understand the ways in which modernity shapes itself through considerations of gender, class and race narratives. ART, GDAN, LIT

Global Issues in Film

IDIS 2540 3 cr. 3 hr. ▲ ●

This course introduces students to crucial global issues of our time, many of which principally concern developing, non-Western nations, but all of which will impact the future of the U.S. Through film viewings, readings, writing, and discussion, students will engage with global problems and learn to develop their own critical viewpoints on complex issues. Students will analyze both documentaries and narrative films as artistic treatments of human problems. Their final project will require an in-depth study of, and presentation on, media representations of global issues pertaining to one nation. CTW, GDCN

Prerequisites: ENGL 1100 and 1200

The Bible as Literature

ENGL 2600 3 cr. 3 hr. ▲ ●

The course examines the style, narrative techniques, symbols and historical setting of the Old Testament and New Testament writers. ART, LIT

Classical Mythology

ENGL 2620 3 cr. 3 hr. ▲ ●

This course is an introduction to mythology, with an emphasis on the myths, epics and plays of ancient Greece and Rome. These may include the works of Homer, Euripedes, Hesiod, Virgil, Ovid and others. ART, LIT

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students. I, B, L, C, IDS

Ethnic American Literature
ENGL 2650 3 cr. 3 hr. ▲

This course presents works by significant ethnic writers, such as James Baldwin, Maxine Hong Kingston, Zora Neale Hurston, M. Scott Momoday, Toni Morrison and Leslie Marmon Silko. ART, LIT

19th Century African American Literature
ENGL 2660 3 cr. 3 hr. ▲ ●

In this course, we will encounter the poetry, fiction, journals, essays, speeches, and songs of nineteenth-century African-American writers. By paying close attention to the personal as well as cultural forms of expression, we will observe how the anguish, joy, and even the mundane aspects of the early African-American experience translate into a distinct canon of literature. Representative authors include Phillis Wheatley, Frederick Douglass, Harriet Jacobs, Frances E.W. Harper, Pauline Hopkins, and W.E.B. Dubois. ART, LIT

20th Century African American Literature
ENGL 2670 3 cr. 3 hr. ▲ ●

This course surveys the major periods, genres, and authors of African-American literature in the twentieth century. This course also connects African-American literature to the representation of Blacks in music, film live performance, media, and society in general. Representative authors include James Baldwin, Lorraine Hansberry, Amiri Baraka, and Toni Morrison. ART, LIT

The Short Story
ENGL 2700 3 cr. 3 hr. ▲ ●

Significant stories by some of the world's great writers are read and analyzed to show the evolution of the short story form. ART, LIT

Introduction to Science Fiction and Fantasy
ENGL 2710 3 cr. 3 hr. ▲

This course will serve as an intensive introduction to the interconnected genres of science fiction and fantasy. We will read a number of significant authors and texts on three related levels; defining specific formal and thematic elements of each; thinking about some of the main sub-categories and periods through which the genres have developed; and working to develop overall concepts and definitions about the genre's form, content, and goals. ART, LIT

Reading Poetry
ENGL 2720 3 cr. 3 hr. ▲

In this course, we will develop techniques to read, understand, perform and appreciate poetry. Through exposure to a wide variety of poetry, we will examine the mechanics of poetic form and also consider the function of poetry in the world, its future and the formation of personal identities through language. LIT

History of the Theater I
ENGL 2730 3 cr. 3 hr. ▲

This is the first course in a two-semester survey on the history of theater, from its roots in pre-history through the Greeks, the Middle Ages, the Renaissance, and ending with Moliere. This course examines the times of Sophocles, Shakespeare, and Moliere, among others, discovering how they were products of their times and how their work contributed to shaping those times. Focus is on western theater, but also included are theater traditions of East Asia, India, Oceania and Africa, such as Balinese Dance Theater, Noh, Bunraku, and Chinese Opera. ART, GDAN, LIT

History of the Theater II
ENGL 2740 3 cr. 3 hr. ▲

This is the second course in a two-semester survey on the history of theater from the late-Renaissance to the present. This course examines Restoration drama and works of such playwrights as Ibsen, Brecht, and Beckett, among other, discovering how they were products of their times and how their work contributed to shaping those times. Focus is on western theater, but also included are theater traditions of East Asia, India, Oceania and Africa, as living traditions and new voices. ART, GDAN, LIT

Detective Fiction
ENGL 2750 3 cr. 3 hr. ▲ ●

The mystery novel/crime story genre is explored through a range of authors and time periods, including stories from Poe to Conan Doyle, classic British fiction, and its distinctively American counterparts, and significant contemporary works. ART, LIT

Journalism
ENGL 2800 3 cr. 3 hr. ▲

This reality-based course covers all aspects of writing news and feature stories for the print media. Students practice techniques used by feature writers, beat reporters and investigative journalists, as well as exploring the many legal and ethical issues faced by those working in news media. (Credit is not given for both ENGL 2800 and COMM 2800)

Editing and Publishing
ENGL 2810 3 cr. 3 hr. ▲

This class explores the mechanics of editing, issues of attribution, use of sources, balanced coverage and libel laws. In addition, the relationship between editor and writer with reference to agents, the submission and selection process, and collaborating are explored. Students also gain an understanding of writing for special markets, such as education or medicine.

Introduction to Secondary School Teaching
ENGL 2860 3 cr. 3 hr. ▲

This course is required of all students preparing for the initial license at the secondary level. A sophomore level course for full-time undergraduates and a first course for transfer students, it is taught at the local high school and is a clinical laboratory experience. The course includes a 25 hour prepracticum requirement and is a prerequisite for other certification courses. Students become familiar with the complexities of secondary school teaching and its demands. The course gives faculty the opportunity to screen students and gives students the opportunity to test their commitment to teaching.

Prerequisite: GPA of 2.5 or permission of instructor.

The Structure and Nature of Language
ENGL 2870 3 cr. 3 hr. ▲

This course studies language systems and grammatical theories, including the history of the English language, theories of language acquisition, and psycholinguistic and sociolinguistic topics. Students will also develop understanding of phonics, morphemes' and syntactical structures of sentences. L

Prerequisites: GPA of 2.5 or permission of instructor.

Storytelling and the Oral Tradition
ENGL 2890 3 cr. 3 hr. ▲ ●

The course studies the oral tradition in European and non-Western contexts. Students examine the oral tradition in classic works as well as its continuance in fairy tales, popular music, story theater and performance art. Students will consider the structure and presentation of traditional, individually composed and family narratives. Each student will give at least two oral presentations before an audience. ART, LIT

Children's Literature
ENGL 2900 3 cr. 3 hr. ▲ ●

The course serves as an introductory survey of both classic and contemporary children's literature. Texts are studied from a variety of perspectives in the contexts of both childhood and society. ART, LIT

Literature for Young Adults
ENGL 2910 3 cr. 3 hr. ▲ ●

This course is a survey of literature for young adults intended to develop the aesthetic and literary judgment of participants through the study of selected authors and genres. The special challenges and concerns of pre-adolescence through young adults will be explored. Such works as realistic fiction, young adult classics, historical novels, and science fiction will be examined. ART, LIT

The Grammar Dilemma: Grammar Instruction in the Middle and Secondary School
ENGL 2951 3 cr. 3 hr.

Designed for prospective English teachers, students will develop a comprehensive knowledge of English grammar and the pedagogical strategies for helping secondary students develop necessary proficiency in English grammar.

Approaches to English Studies
ENGL 2999 3 cr. 3 hr. ▲

An introduction to the academic study of English and the different ways readers can connect to, think about and experience literature. The course provides an overview of the discipline's issues and theories and gives students experience in writing practical criticism and using research tools and methods. LIT

World Drama

ENGL 3000 3 cr. 3 hr. ▲

This survey course focuses on non-English language Drama across the ages. The works of the Golden Age of Greece, Moliere, Pirandello, Dario Fo, Brecht, great Spanish writers like Calderon, Lope de Vega and Lorca, Japanese masters like Chicamatzu and Kanimi, might be studied in this course. ART, GDAN, LIT

American Drama

ENGL 3010 3 cr. 3 hr. ▲

This is a survey of American Dramatic Literature from its beginnings in the prerevolutionary British Colonies to the present. The course involves critical reading of dramatic texts. Students will attend productions of plays on and off campus studied in the class. Students will engage in active discussion and analysis of these plays and will be required to write papers on particular authors. ART, LIT

Modern Drama

ENGL 3020 3 cr. 3 hr. ▲

This course surveys the dramatic Literature and theatre movement from roughly 180 to the present. Students will read and analyze works of Ibsen, Chekhov, Shaw, Brecht and Beckett among others. The class covers such movements as Realism, Expressionism, Surrealism, Absurdist Drama and the Dada movement. ART, GDA, LIT

The Middle Ages

ENGL 3030 3 cr. 3 hr. ▲

An introduction to primary texts of the medieval period, c. 500-1500, primarily from the British Isles and France, from the earliest extant Old English epic, *Beowulf*, to Malory's *Morte d'Arthur* and Christine de Pizan. Selections from Chaucer and the drama are read in Middle English; other texts in translation. Genres covered may include epic, lyric and narrative poetry, mysticism, romance, fable, and drama. ART, LIT

British Literature Since World War II

ENGL 3040 3 cr. 3 hr. ▲ ●

This course examines fiction, drama and poetry written in Britain and its former Commonwealth since World War II. Special emphasis is placed on the role imperialism and decolonization has had in literature. Authors examined include A.S. Byatt, Derek Walcott, Wole Soyinka, Salman Rushdie and Michael Ondaatje. ART, LIT

20th-Century Irish Literature

ENGL 3050 3 cr. 3 hr. ▲ ●

Students will examine poetry and prose from the entire century of Irish writing in this course. Special emphasis is placed on Joyce and Yeats as major writers whose influence continues to shape Irish writers and thinkers. Other authors covered include Roddy Doyle, Lady Gregory, and Sebastian Barry. ART, LIT

Modern Poetry

ENGL 3060 3 cr. 3 hr. ▲ ●

Chief modern poets of America and England are introduced and close reading is encouraged in the lyric form of writers such as Eliot through Lowell, Plath and other end-of-century writers. Emphasis is on these creators as precursors in a tradition. ART, LIT

European Literature I

ENGL 3070 3 cr. 3 hr. ▲

This class will provide a selective survey of European Literature from the Medieval period to 1800, at time period which lays the foundation for many poetic, prose, dramatic genres of Western literature and which spans many political, social, cultural developments. Special emphasis is given to the development of the novel, women's writing and the development of a "European" literature and tradition. ART, GDA. LIT

European Literature II

ENGL 3080 3 cr. 3 hr. ▲

In this course we examine some of the most important recent European works from the past three hundred years. Works read cover not only the different cultures that constitute Europe, but also reflect the changing political landscape that has shaped the landmass that is identified as "Europe." ART, GDA , LIT

Questioning War in Film and Literature

ENGL 3090 3 cr. 3 hr.

This course examines the narrative and stylistic conventions of war stories, along with the cultural and political implications of screen images and written accounts of violent conflict and its effects. Our main focus will be films and literature that address the human costs of modern warfare and thereby question war itself. We will explore texts representing the experiences of women as well as men and individuals with a range of national, cultural, and political backgrounds. ART, LIT

Prerequisites: ENGL 1100 and ENGL 1200.

Asian Cinemas: Eastern Visions in a Post Colonial World

ENGL 3091 3 cr. 3 hr.

This course is a survey of classic and contemporary Asian film. The history of colonialism and imperialism in South and East Asia, a legacy that figures prominently in the films we will study. Assessing the stylistic and narrative conventions of Indian, Japanese, Chinese, and Korean cinemas, we will recognize how these storytelling traditions often contrast with Hollywood and other Western cinemas. We will become acquainted with the work of some of Asia's greatest directors. ART, GDAN

Transatlantic Literature

ENGL 3092 3 cr. 3 hr. ▲ ●

This course will survey significant works from writers across the Atlantic; that is, writing from and about the Americas, the Caribbean, Africa, Europe, and England. By interrogating canonical and non-canonical writing within the particular context of transatlantic cultural exchanges, the course will consider the ways in which cultural and historical factors shape and change the literary subject. ART, GDA

The World Novel to 1914

ENGL 3100 3 cr. 3 hr. ▲

The course investigates significant novels such as Madame Bovary and Anna Karenina representing various countries and periods, as well as stages in the development of this literary form ART, GD, LIT

The World Novel Since 1914

ENGL 3110 3 cr. 3 hr. ▲

In this course we will read novels, published after 1914, from Asia, Africa, Europe, Latin America, and Canada. The selected authors may venture beyond realism to surrealism, magic realism, science fiction, and graphic novels. Although the authors are from widely different backgrounds and nationalities, they are all concerned with the present human condition and the future of our communities. L, C, ART, GDAN

Golden Age of English Renaissance Literature

ENGL 3120 3 cr. 3 hr. ▲

This course focuses on the poetry, prose and drama of the English Renaissance's Golden Age, roughly 1530-1625, beginning with poetry of the Tudor period and ending with drama from the reign of the Stuarts. This period encompasses the work of some of the greatest and best-known English authors, lays the foundation for many genres of literature, and encompasses many political reigns and social and cultural developments. The course will examine major literary forms and genres and topical/thematic concerns of writers, linking these to key social, political, and historical developments. ART, LIT

Major American Writers of the 20th Century

ENGL 3210 3 cr. 3 hr. ▲

The varied creativity of American writers in this century is explored through the study of fiction, drama, poetry, criticism and the essay. ART, LIT

American Novel to 1950

***ENGL 3220 3 cr. 3 hr.** ▲

This course provides a close examination of several representative works by major American novelists between 1800 and 1950. ART, LIT

Women and Literature

ENGL 3300 3 cr. 3 hr. ▲

Literature by and about women is examined in light of their roles in society, at work and in relationships. ART, LIT

From Fact to Fiction
***ENGL 3400 3 cr. 3 hr.** ▲

This class explores the research strategies and writing techniques used in fact-based fiction, which tells stories with authentic detail and an element of truth. Students are challenged to create their own works in this popular genre, learning from the example of bestselling fiction writers who began their careers as reporters.

Writing for the Web
ENGL 3480 3 cr. 3 hr. ▲

This course combines theory and practice in examining the unique challenges inherent in writing for the World Wide Web. Students learn the conventions, ethics and laws governing various forms of online writing, including online discussion and reviews, blogs, Web pages, wikis, ezines and collaborative fiction. Students then put this knowledge into practice, creating original content for the Web.

College Newspaper Production
ENGL 3490 3 cr. 3 hr.

This course offers guided practical experience in content creation, design and production of a bi-weekly college newspaper. Students fill staff positions as reporters, copy editors, photographers/graphic artists, page designers, production editors, and advertising managers. The course may be taken three times for credit.

Creative Writing
ENGL 3500 3 cr. 3 hr. ▲ ●

Critical reading and the process of writing are combined in this course, as students write and edit fiction and poetry in a workshop setting. Creative writing techniques are explored; emphasis is placed on the development of a unique, personal voice. Junior standing or approval of the instructor is required to enroll in this class.

Fiction Writing
ENGL 3510 3 cr. 3 hr. ▲

This course encourages students to explore the writing processes in a supportive workshop. Students will draft, revise, and complete two short fictional pieces, either short stories or segments of longer works. Writers will receive guidance in refining their use of fictional techniques and will learn to develop voice and theme to create effective short stories and novels. Writing partners and peer editing groups will work together to give and receive useful and compassionate editorial feedback.

Writing Poetry
ENGL 3520 3 cr. 3 hr. ▲

In this workshop course challenges students to grapple with poetic technique and, in the process, discover their own voices as poets. Students immerse themselves in the traditions of formal verse and write their own poems in a variety of closed and open forms. Students will revise and assemble a selection of their best work for a final portfolio, and contribute to the production of the University's literary journal, *Route 2*.

Fiction Writing II: Time, Tone and Technique
ENGL 3530 3 cr. 3 hr. ▲ ●

In this continuation of Fiction Writing (ENGL 3510), students further develop their skills as creative writers by exploring techniques for writing short stories and novellas. Technical knowledge of fiction writing basics is expanded and more advanced techniques are practiced, including image patterning, compaction, control of narrative pacing, voice and narrative distance, a sophisticated understanding of time manipulation, creating a credible narrative consciousness within a work.

The Classical Tradition in Western Literature
ENGL 3620 3 cr. 3 hr. ▲ ●

An examination of some of the most influential texts of classical antiquity and the subsequent literary tradition that arose in the West. Students will read epics, lyric poetry and drama, which may include selections from Homer, Virgil, Ovid, Horace, Euripedes, Aeschylus, Terence, Seneca, and contemporary works influenced by the classics. ART, LIT

African Literature
ENGL 3700 3 cr. 3 hr. ▲

This course explores a wide range of fiction and literary practices of some leading African writers. The course pays close attention to particular oral, literary and visual strategies used by African writers to create multiple versions of "life" in Africa during pre-colonial, colonial and contemporary times. It also raises and engages a wide range of crucial questions and ideas that pertain to African cultures, politics and societies. ART, GDAN, LIT

South Asian Literature
ENGL 3710 3 cr. 3 hr. ▲

This course looks at some examples of Anglophone literature that emerged in South Asian countries after their independence from colonial rule. We will examine the literature of these countries to evaluate their adaptation and resistance to Western culture. The first part of the course deals with the theme of "Empire Writes Back," where colonial representations of the native and the native's self-representation are examined side by side. The second part of the course delves into other complex issues within the formation of postcolonial identity, such as questions of gender, race, and class within postcolonial discourse. ART, GDAN, LIT

Caribbean Literature
ENGL 3720 3 cr. 3 hr. ▲

In this course, students read and discuss fiction by writers from different parts of the Caribbean to gain insight and broaden their understanding of fiction produced in these Island nations. The course's focus is on the relationships between culture and society as this fiction is examined against specific historical, cultural and political backgrounds. It also inquires into values associated with questions of identity, family, ideology, etc. ART, GDAN, LIT

The Illustrated Book and the Rise of the Graphic Novel
ENGL 3730 3 cr. 3 hr.

This course explores the history of the illustrated book and the role of illustration in popular literature. We will consider the role of illustration in children's picture books, wordless novels, the comics and pulp magazines. We will examine, in particular, the development of the graphic novel and other forms that combine sequential art and narrative storytelling. ART

Prerequisites: ENGL 1100, ENGL 1200.

College Newspaper Production
ENGL 3830 3 cr. 3 hr. ▲

Guided practical experience in content creation, design and production of a biweekly college newspaper. Students fill staff positions as reporters, copy editors, photographers/graphic artists, page designers, production editors, and advertising managers; most students rotate among several staff positions during the semester. Tasks related to copy and production flow mirror those of a mainstream newspaper; effectiveness is gauged by detailed weekly analysis of the ongoing journalistic process and product.

Prerequisites: ENGL 1100, 1200 or by permission of instructor.

On-line Magazine
***ENGL 3840 3 cr. 3 hr.** ▲

This course provides a close study of significant mainstream and alternative online magazines, uncovering techniques and strategies that students use to produce their own collaborative online publication. Content development, information design, and online production are practiced; in addition, students explore the aesthetic and informational potential of this fast-developing medium.

Writing for Business and Technology
ENGL 3860 3 cr. 3 hr. ▲ ●

The course is for students interested in writing for industry, technology, or business management. Topics covered include business correspondence, description of process and mechanisms, sets of instructions, proposals, abstracts, and reports. (Credit is not given for both ENGL 3860 and COMM 3860)

Feature and Magazine Writing

ENGL 3870 3 cr. 3 hr. ▲

This reality-based course covers all aspects of developing, writing and marketing feature articles for magazines and trade journals. Students practice interview and research techniques, writing query letters, finding target markets, and crafting articles that demonstrate effective use of slant, theme, voice and viewpoint. (Credit is not given for both ENGL 3870 and COMM 3870)

Prerequisite: ENGL or COMM 2800.

Folklore in America

ENGL 3880 3 cr. 3 hr. ▲

Students will be introduced to the academic discipline of folklore and to a range of cultural traditions found in the United States. Folklore includes traditions that are informally propagated, adaptable to individual innovation and common to cultures around the world. Emphasis will be on verbal forms—i.e. oral traditions studied through textual analysis as a form of literature. ART, GDA, LIT

Creative Nonfiction Writing

ENGL 3890 3 cr. 3 hr. ▲

This course is an upper-level writing workshop that investigates the linguistic, social, persuasive and literary dimensions of creative nonfiction. Students read and gain experience writing its various sub-genres, which may include memoir, cultural criticism and literary analysis. LIT

Advanced English Courses

Prerequisite for all 4000-level literature courses is satisfactory completion of one 3-credit literature course at the 2000-or 3000-level, or permission of instructor.

Major Authors

ENGL 4000 3 cr. 3 hr

This rotating course explores in depth the works and career of a major author who has made significant contributions to literary tradition. Students gain a unique understanding of literature by tracing out a variety of themes and genres within the author's major and minor works. Through close attention to a single author students also learn first-hand how biographical, historical and literary contexts come to shape artistic output; the course also includes research and readings in literary criticism on the author.

Chaucer and His World

ENGL 4010 3 cr. 3 hr. ▲

This course on the "father of modern English poetry" focuses primarily on Geoffrey Chaucer's *The Canterbury Tales,* in a context of the history and culture of medieval England. Students will learn to read Chaucer's 14th-century Middle English, the London dialect that evolves into today's English, with the assistance of audiotapes. The tales are studied both in the framework of the interrelated stories told by the pilgrim characters on the way to Canterbury, and in themselves, as they present various medieval genres and issues of concern and interest to Chaucer's audience and to us today. LIT

Shakespeare's Drama: Text and Performance

ENGL 4020 3 cr. 3 hr. ▲

This course studies several of Shakespeare's dramas with a focus on the thematic issues raised by the plays in the texts and in performance. Examination involves not only reading and critical interpretation, but also attention to performance traditions and recent interpretations/adaptation of these works on stage and screen. LIT

Interpreting Shakespeare's Work

ENGL 4030 3 cr. 3 hr. ▲

This course will study selected poems and plays from Shakespeare's canon, examining particularly his treatment of power, love, gender, and the other. We will consider: Who and what is Shakespeare? Why is Shakespeare considered the world's greatest author? To what purposes have Shakespeare and Shakespeare's texts been put in literary, historical, ideological, education and cultural terms? How do contemporary readings, films, and production of Shakespeare (re) present Shakespeare? LIT

Major English Writers of the 17th Century

***ENGL 4040 3 cr. 3 hr. ▲**

This course will survey one or more genres, for example, the dramas of Jonson, Webster, Behn and Congreve; the poetry of Milton, Donne, Herbert, Herrick, Marvell, Dryden, Wroth and Phillips; and prose work by Browne, Fell, Astell and Pepys. LIT

The Novel in the 18th Century

ENGL 4050 3 cr. 3 hr. ▲

This course introduces students to some of the rich critical and theoretical traditions surrounding one of the truly great modern literary forms, the novel. Our discussions will move between crucial works of English literatures and influential theoretical texts as we explore the social conditions that led to the emergence of the novel. We will also discuss issues of class, gender, and imperial power in major works of Defoe, Richardson, Fielding, Burney, Johnson, Austen, Edgeworth, Heywood, and others. LIT

Early Modern Women Writers

ENGL 4060 3 cr. 3 hr ▲

This course examines Early Modern British women writers, works in relation to gender study, proto-feminism, society, literacy, creativity and female authorship and authority. Key issues covered include the evaluation of women,s writing in relation to canonicity, the integration of women,s voices into literary history, and consideration of the genres women writers used relative to their social roles.

Tradition and Revolution in 18th Century Literature: 1750-1830

ENGL 4070 3 cr. 3 hr. ▲

This course explores the revolution in manners, philosophy, science, and gender as reflected in literature, art, and music from the late 18th century. As we move from detailed considerations of the neoclassical aesthetic to the high Romantic argument, we gain a deeper understanding of eighteenth-century literature through its engagement with the politics of gender, race and class, and its place in the intellectual and cultural history the West and the World. LIT

British Romanticism

ENGL 4080 3 cr. 3 hr. ▲

The poetry, prose, and art representative of the political, social and artistic upheaval called Romanticism is considered. Readings include Romanticism's outcasts, alternative voices and anti-Romantic writers. LIT

The 19th-Century English Novel

ENGL 4090 3 cr. 3 hr. ▲

Significant novels demonstrating the changing cultural milieu and varying approaches of the genre during this period are examined and discussed. LIT

Victorian Literature

ENGL 4100 3 cr. 3 hr. ▲

This class focuses on the development of literature in the face of changes in science and industrialization in the 19th-century British Empire. Authors studied included Tennyson, Browning, Arnold, Barrett-Browning, and those who comprise "The Golden Age" of British Children's Literature. LIT

British Modernism

ENGL 4115 3 cr. 3 hr. ▲ ●

This course examines the major texts and trends of what is now called High Modernism. Authors studied include Ford Madox Ford, James Joyce, Virginia Woolf and T.S. Eliot. LIT

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

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The American Comic Tradition

ENGL 4150 3 cr. 3 hr ▲

The course will stress the development of what is a conspicuously American type of humor. The course begins with the quintessential American humorist and satirist, Mark Twain and then explores a range of comic genres and themes, from black comedy to feminist humor, that continue to enliven our national popular culture in many media. This course explores the writings and career of Mark Twain, and humorists who share the Twain legacy, including American film comedy and stand-up comics. LIT

The Romantic Movement in U.S. Literature 1810–1860

***ENGL 4200 3 cr. 3 hr. ▲**

This course begins by considering similarities between British and American Romanticism, then it explores the movement's orientations towards nature, the supernatural, race, gender, and the individual's role in society. Key authors for this course include Emerson, Thoreau, Poe, Melville, Dickinson, and Whitman. While the focus will be on careful readings of selected texts, we occasionally consider how principles of Romanticism appear in the arts of painting, music, and dance. LIT

American Novel Since World War II

ENGL 4230 3 cr. 3 hr. ▲

The class provides a close analysis of seven or eight major novels. LIT

Seminar

ENGL 4400 3 cr. 3 hr. ▲

The seminar examines topics for literary analysis and research as selected by the instructor. The seminar is required for English majors taking the literature track. Junior/Senior standing required. Others are admitted by permission of instructor.

Literary Theory

***ENGL 4500 3 cr. 3 hr. ▲**

Theories about literature are examined, and their practical application in the classroom and in one's own reading is discussed. Approaches to different forms of literature as well as a survey of changing historical perspectives are also explored.

Literary Cult of the Virgin Queen

ENGL 4600 3 cr. 3 hr ▲

Representations of England's controversial "Virgin Queen" (1558-1603) were central to the nation,s literary, artistic, and cultural life. This course examines key texts about Elizabeth I by contemporary writers and courtiers like Philip Sidney, Edmund Spenser, Walter Ralegh and William Shakespeare, as well as literature by lesser-known male and female writers of the 16th and 17th centuries.

Teaching Reading and Writing Across the Content Area

ENGL 4700/EDUC 4700 3 cr. 3 hr. ▲

This course provides practice and research in alternatives for teaching reading and writing in middle and secondary schools. Different approaches are explored through experiments for the teacher and opportunities to test these approaches are available in pre-practicum experiences. A pre-practicum is required.

Prerequisite: BIOL 2860, or HIST 2860, or MATH 2860, or SCED 2860 or SEED 2860. GPA of 2.5 or permission of instructor.

Special Methods in English

ENGL 4850 3 cr. 3 hr. ▲

The approach in this course for the Initial Licensure Track provides a holistic framework for teaching secondary English emphasizing the interrelatedness of all language abilities: speaking, listening, reading, and writing. We experiment with and evaluate a variety of teaching strategies for creating responsive, reflective, and responsible readers, writers, and speakers as well as methods for the assessment of student performance. A prepracticum is required.

Prerequisite: ENGL 2860 and ENGL 4700 or equivalent and a 2.75 overall GPA and 3.0 in biology, Communication/Literacy MTEL and Subject Area Exam.

English Practicum in a Secondary School I and II

ENGL 4860 English Practicum I 6 cr. 150 hr
ENGL 4870 English Practicum II 6 cr. 150 hr

In the student teaching practicum students are assigned to cooperating schools for a semester of student teaching.

Practicum Seminar in Secondary English

ENGL 4865 3 cr. 3 hr. ▲

The historical perspectives and philosophical orientations in the field of English secondary education are examined. Specific attention is given to analysis of current issues and programs. This course is reserved for senior practicum students only.

Independent Study

ENGL 4903 3 cr. ▲ ●

The Independent Study is for English majors excelling in scholarship and can be taken upon approval of both department chair and advising instructor. Course of study, meetings, and credit are arranged with advisor.

Internship

ENGL 4940 3 cr. ▲
ENGL 4950 6 cr. ▲
ENGL 4960 9 cr. ▲
ENGL 4970 12 cr. ▲

The Internship provides an opportunity to gain valuable on-the-job experience for university credit by working in business or industry. Students select field placement where they can use their abilities as communicators, learn new skills, and sample a potential job market. The Internship is a recommended component of the English Department Writing Track. Department approval and junior/senior standing required.

Directed Study

ENGL 4975 1-6 cr. ▲ ●

English Capstone

ENGL 4999 3 cr. 3 hr. ▲ ●

This course is the culminating learning experience for all English majors, in the four different but equal tracks; namely, literature, education, professional writing, and theater. Students taking this course will engage with questions such as: what does it mean to be an English Major? What do theater, secondary, education, literature, and professional writing students have in common as they look ahead to their professional lives post graduation? In this capstone course, through various classroom activities and requirements that include a senior portfolio, students will explore their intellectual commonalities and probe the significance of what it means to be a student of the liberal arts.

Pre-requisite: 30 credit hours completed within the major.

Environmental Science

Introduction to Environmental Science

ENSC 1000 3 cr. 4 hr. ▲ ●

The goal of Introduction to Environmental Science is to provide students with the scientific principles, concepts and methodologies required to understand interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems and to examine alternative solutions for resolving and/or preventing them. LAB, SMT

Field Techniques in Environmental Science I

ENSC 2000 3 cr. 4 hr. ▲ ●

This course will provide an introduction to the mode of thinking as well as the scientific techniques to performing data gathering appropriate for work in the field. As such it is appropriate for both environmental science and biology students. The focus of the field techniques will be ecological/biological. This course is independent of ENSC 2100 Field Techniques in Environmental Science II.

Field Techniques in Environmental Science II

ENSC 2100 3 cr. 4 hr. ▲ ●

This course will provide an introduction to the mode of thinking as well as the scientific techniques to performing data gathering appropriate for work in the field. As such it is appropriate for both environmental science and biology students. The focus of the field techniques will be physical/biological. This course is independent of ENSC 2000 Field Techniques in Environmental Science I.

Elements of Physical Chemistry

ENSC 3000 4 cr. 6 hr. ▲ ●

This is an introductory course in physical chemistry covering: thermodynamics, mass-transport, solutions, and other topics. It is designed to provide students with the ability to think critically and utilize physical parameters in chemical systems, to perform numerical calculations involving these systems and to use this understanding when viewing environmental problems and risks.

Environmental Analysis

ENSC 4000 4 cr. 6 hr. ▲ ●

Students will conduct chemical analyses of air, soil and water for metals, inorganic ions and volatile and semi-volatile organic parameters. Participants will be required to collect samples, prepare documentation, prepare standards and samples, perform calculations and prepare reports detailing procedure, results, and an interpretation of the results.

Seminar in Environmental Science

ENSC 4100 3 cr. 4 hr. ▲ ●

The course will consist of a series of presentations of actual environmental problems. The course will include attending local conservation and/or planning commission meetings.

Internship in Environmental Science

ENSC 4950 4-6 cr. ▲ ●

The internships experience is for senior environmental science majors. These internships are to be completed at a participating federal, state, local, or private environmental organization. A 3.00+ cumulative average in the major and cognate departments is required to enroll.

Directed Study

ENSC 4975 1-6 cr.

Exercise and Sport Science

The Exercise and Sport Science department offers a number of courses on a health-related topic or as recreation. These courses are listed below.

Health and Fitness

EXSS 1000 3 cr. 3 hr. ▲ ●

The course provides a basic survey of the effects of diet, exercise, and selected environmental agents on the mental and physical health of humans. Topics may include body build and body composition, fitness evaluation and programming, nutritional considerations, psychological correlates of health, chemical alterations, and personal and public health. HAF, SMT

Leadership in the Outdoors

LEAD 1140 1 cr. 1 hr. ▲

This course is part of the Leadership Academy. Using adventure activities, students will have an opportunity to identify their leadership skills, experiment with new leadership strategies and identify one or two areas for future development of their leadership skills. Also, students will develop a sense of camaraderie and discover that outdoor adventure activities are an enjoyable part of a healthy lifestyle.

Exercise, Nutrition, and Heart Disease

EXSS 2060 3 cr. 3 hr. ▲ ●

This course is designed to examine the integrative relationships inherent in the study of exercise, nutrition, and heart disease. Body build and body composition assessments are made, exercise prescriptions and programs are developed, and prevalent controversies in the areas of obesity, dietary goals, guidelines and plans, atherosclerosis, and heart disease are discussed. Course sections that fulfill this requirement are designated as such. Some sections are for EXSS majors only. HAF, SMT

Jogging: Theory and Practice

EXSS 1400 1 cr. 2 hr. ▲

The theories and practices of cardiovascular conditioning using jogging as the activity mode are presented. Pre-post cardiovascular and body composition evaluations are made and program prescriptions are designed. Topics covered include training principles and programs, energy sources, aerobic and anaerobic processes, nutrition, exercise and weight control, exercise training effects, psychological considerations, environmental conditions, injuries and running.

Body Shaping

EXSS 1440 1 cr. 2 hr. ▲

The theory of weight training and diet in relation to body shaping is discussed. Each student undergoes physique, body composition, aerobic fitness and muscular strength evaluations before and after a weight training program.

Weight Training for Athletes

EXSS 1450 1 cr. 2 hr. ▲

The course examines theory for the development of muscular strength for specific athletic activities. Anthropometric, body composition and muscular strength evaluations are assessed prior to and following an individually developed weight training program. SMT

Standard First Aid/Adult CPR

EXSS 1460 1 cr. 2 hr. ▲ ●

A behaviorally oriented course structured for those responsible for the safety and protection of others. Standard First Aid and Adult CPR, and AED certificates are issued if the student satisfies all the American Red Cross requirements.

Techniques of Road Racing

EXSS 1470 1 cr. 2 hr. ▲

The purpose of the course is to acquaint the student with various topics of running long distance road races. Topics covered include the physiology of running, training strategies, injury care and prevention, nutritional aspects and methods of assessing running ability. Each student undertakes a training program and participates in three road races.

Stress Management

EXSS 1490 1 cr. 1 hr. ▲

This course is a multifaceted and holistic approach to the understanding and control of stress in a wellness context. Topics covered include stress psychophysiology, the relationship between stress and illness, life situation and perception interventions, time management, and bioecological stressors. Also, the study and implementation of specific relaxation techniques such as diaphragmatic breathing, progressive relaxation, exercise, autogenics, and meditation will be covered.

Consumer Health

EXSS 1510 1 cr. 1 hr. ▲

This course is designed to help the student evaluate health and fitness information critically, and select products and services wisely. The areas of quackery, alternative medicine, nutrition, personal fitness and consumer protection are studied. The course is a requirement of Leadership Academy students.

Diet, Exercise, and Weight Control

EXSS 1520 1 cr. 2 hr. ▲

The course is designed for those interested in weight loss or weight maintenance through the medium of diet and exercise. After an initial assessment of body composition, aerobic fitness, muscular fitness and the establishment of dietary goals, each student works toward body weight goals through actual programs of exercise and diet.

Activity Courses

Activity courses are taught on a semester basis. Each course carries two clock hours per week and one credit.

EXSS 1010	**Basketball**
EXSS 1020	**Volleyball**
EXSS 1040	**Tennis**
EXSS 1050	**Advanced Tennis**
EXSS 1060	**Badminton**
EXSS 1070	**Karate**
EXSS 1080	**Judo**
EXSS 1120	**Aerobics**
EXSS 1130	**Dance Aerobics**
EXSS 1150	**Canoeing**
EXSS 1170	**Introduction to Mountain Hiking**
EXSS 1180	**Backpacking**
EXSS 1190	**Downhill Skiing**
EXSS 1200	**Cross Country Skiing**
EXSS 1210	**Modern Jazz I**
EXSS 1220	**Modern Jazz II**
EXSS 1230	**Modern Jazz III**
EXSS 1240	**Yoga**
EXSS 1250	**Bicycle Touring**
EXSS 1280	**Orienteering**
EXSS 1300	**Recreational Sports**
EXSS 1310	**African Jazz Dance**
EXSS 1410	**Beginning Swimming**
EXSS 1420	**Intermediate Swimming**
EXSS 1430	**Introduction to Water Aerobics**

Professional Courses

Intro to Exercise Science

EXSS 1011 3 cr. 3 hrs.

This course is an introductory study of the basic concepts underlying the study of exercise science, including fundamental exercise training principles, basic nutrition, and the essentials of measurement as it applies to fitness, wellness, and performance. In addition, this course will introduce students to various organizations, certifications, and potential career choices in the exercise sciences. This is a required course for Exercise and Sport Science majors.

Lifeguarding

EXSS 1500 3 cr. 3 hr. ▲

The Lifeguarding course is designed to teach lifeguards the skills and knowledge needed to prevent and respond to aquatic emergencies. Upon successful completion of the course, students can earn American Red Cross certification in Lifeguard Training. First Aid and CPR for the Professional Rescuer.

Prerequisites: Swim 500 yards continuously using the following strokes: 200 yards of front crawl, 100 yards breastroke, 200 yards mixture of front crawl or breastroke. Swim 20 yards using the front crawl or breastroke surface dive to a depth of 7-10 feet, retrieve a 10 pound object, surface and swim 20 yards back to the starting point with the object completed.

Functional Anatomy

EXSS 2050 3 cr. 3 hr. ▲

This course is a study of anatomical structure and its function in human motion. Topics include the anatomy of the musculoskeletal systems, primary musculature involved in specific motions, the anatomy of force production, range of motion and movement planes. Considerable practical experience in the analysis of motion from a functional anatomical basis is given.

Prerequisite: BIOL 1200.

Exercise Physiology I

EXSS 2070 4 cr. 4 hr. ●

In this course, human systemic response and adaptation to exercise and exercise training are studied in-depth. Topics included are epidemiology and physiology in health and disease, homeostasis and exercise metabolism, bioenergetics, nutrition, exercise and performance, exercise prescriptions for health, training, exercise and the environment and factors limiting performance. Laboratory experiences provide practical assessment skills as well as application of the scientific method to problems and issues in this field. SMT

Prerequisites: BIOL 1200, and 1300.

Exercise Physiology II

EXSS 2072 4 cr. 4 hrs. ▲ ●

This is the second of a two-sequence course which is designed to cover physiological response to acute exercise and chronic adaptations to exercise. Part II of this course will examine cardiovascular system, respiratory system, and the impact of different environmental conditions on exercise responses and capacity. It will also introduce research methods in exercise science. Application of physiological concepts to clinical populations and across the lifespan will be made. The laboratory component of this course will offer students an opportunity to assess, evaluate and demonstrate some of the physiological concepts discussed in class. In laboratory, students will also develop a research question, design a research study, perform data collection, interpret and analyze the data collected and present results in a formal research presentation.

Prerequisites: BIOL 1200, BIOL 1300 and EXSS 2070.

Nutrition in Exercise and Sport

EXSS 2300 3 cr. 3 hr. ▲

This course involves a thorough discussion of the principles of general nutrition. Emphasis is placed on the examination of specialized diets for training, weight control and body enhancement, and on the use of ergogenic aids during exercise and exercise training. Course material is enhanced by researching current trends and by personal nutrition projects.

Prerequisite: 24 credits completed.

Health Promotion

EXSS 2400 3 cr. 3 hr. ▲

This course involves the design, implementation, and evaluation of wellness programs from the health care industry to the private sector. Marketing applications including materials production, are considered. Specific program design includes exercise prescription, nutrition, smoking cessation, stress management, and other health-related topics.

Human Motor Development

EXSS 2500 3 cr. 3 hr. ▲

This course focuses on human development processes, especially with regard to response and adaptation to exercise in children and the elderly, motor control and decline of function with aging.

Psychology of Sport and Exercise

EXSS 2660 3 cr. 3 hr.

Sport and exercise psychology is the scientific study of people and their behavior in sport and exercise activities, and the application of the resulting knowledge. In this course we review reasons for involvement in sport and exercise, and review the effects of physical activity on mental health and well-being. We also address factors that influence individual and team performance, such as motivation, confidence, and group dynamics. Finally, students are expected to engage in some form of sport or exercise during the course, and to consider how course concepts can help them achieve enjoyment and success.

Prerequisites: PSY 1000 or PSY 2200.

Biomechanics

EXSS 3020 3 cr. 3 hr. ●

This course involves the study of the mechanical aspects that underlie human motion. Mechanical considerations include describing motion in terms of levers, linear and angular acceleration, velocity, and projectiles, and the determination of motion by studying force, inertia, mass, momentum, impulse, drag, lift, buoyancy, center of gravity and stability. Application of anatomical and mechanical principles is related to the improvement of performance in selected sports.

Co-requisite or Prerequisite: EXSS 2050.

Adaptations

EXSS 3050 3 cr. 3 hr. ▲

The course is designed to integrate the natural and exercise sciences from the standpoint that survival of the organism depends upon its ability to adapt to a given environment. The acute and chronic effects of several stressors found within the environment such as oxygen, light and dark, exercise, heat and cold, emotion and stress, altitude, nutrition and evolution are studied in the classroom and the laboratory. SMT

Prerequisites: EXSS 2070 and 2072.

Scientific Foundations of Strength Training and Conditioning

EXSS 3120 3 cr. 3 hr. ▲

The course combines the theoretical and practical aspects of strength training and conditioning. Topics covered include exercise and fitness-related principles and practices of physiology, neuromotor control, biochemistry, anatomy, biomechanics and endocrinology. The development of state-of-the-art, safe and effective strength and cardiorespiratory endurance training programs are presented.

This course is offered to all Fitchburg State University students who have taken BIOL 1200 and BIOL 1300. However, some sections are designated for EXSS majors only. These sections carry a prerequisite of EXSS 2070.

Apprenticeship

EXSS 3130 1-3 cr. ▲

These one-credit on-campus experiences are designed to enhance theory through cogent work in a specific area, such as exercise testing, strength training, fitness management, and research skills. Students apply for apprenticeships with specific professor in the semester prior to the semester in which the work will be done.

Prerequisite: junior or senior standing.

Exercise Testing and Prescription

EXSS 3450 4 cr. 4 hr.

The course provides theory and practice for evaluating and prescribing exercise for the enhancement of the functional capacity of the cardiopulmonary, metabolic and musculoskeletal systems in health and disease. Basic topics include review of scientific bases for testing and prescription, human behavior and motivation, basic electrocardiology, risk factors in exercise and exercise testing, health appraisal and fitness testing, exercise programming, nutrition and weight management and program administration. This course is based on the knowledge required for certification as a health/fitness instructor by the American College of Sports Medicine.

Prerequisites: EXSS 2070.

Exercise Response and Adaptations in Special Populations

EXSS 3600 3 cr. 3 hr. ▲

The primary aim of this course is to explore the clinical aspects of exercise physiology as it applies to special populations. The pathophysiology of today's most prominent diseases, with regards to mortality and morbidity, are addressed. Students learn about diagnostic techniques, as well as pharmacological and invasive interventions which may be indicated for various special populations. Finally, appropriate exercise testing protocols for special populations are examined and students learn how to formulate and implement dynamic exercise prescriptions for a myriad of patients/clients.

Prerequisite: EXSS 3450.

Fundamentals of Coaching

EXSS 4000 3 cr. 3 hr. ▲

An analysis of the principles and practices of coaching in various sports is presented for the prospective teacher/coach.

Recreational Leadership

EXSS 4010 3 cr. 3 hr. ▲

The organization and administration of recreational activities are presented in reference to the development of the principles and practices in both school and community programs.

Camp Counseling

***EXSS 4020 3 cr. 3 hr.** ▲

Course content provides an opportunity to study some of the problems in the field of camping. Emphasis is placed on acquiring essential skills for camp life, developing various leadership styles as a camp counselor and addressing the individual and group needs of campers.

Motor Learning and Control of Human Movement

EXSS 4025 3 cr. 3 hr. ▲

This course is designed to provide students with an overview of the study of motor learning and control associated with human movement. Selected motor learning and motor control theories and determinants of skill acquisition are covered. Topics include differences in motor control based on age, gender, and pathology and skill level.

Prerequisites: BIOL 1200, BIOL 1300, EXSS 3020.

Physical Education, Fitness and Sport: An Overview

EXSS 4030 3 cr. 3 hr. ▲

This course is designed to provide the student with an overview of the philosophic history, administrative/management patterns and current professional and academic disciplinary program approaches in physical education, fitness and sport. Emphasis will be directed towards the new and changing nature of physical education relative to career perspectives.

Fitness Management

EXSS 4040 3 cr. 3 hr. ▲

The focus of this course is the planning and implementation of fitness programs in the commercial and corporate settings. Topics include organization management, staff management, strategic planning, risk management, program promotion and marketing, and sales.

Prerequisite: Junior or senior standing.

Cardiovascular Physiology and Electro Physiology

EXSS 4045 3 cr. 4 hr. ▲

Cardiovascular dynamics is studied through the anatomy, electro physiology and pathology of the cardiovascular systems. Description of the ECG variations and the underlying mechanisms forms the foundation for practical experience in clinical interpretation of the ECG.

Prerequisites: EXSS 2070 and 2072.

Art of Dance (Arts Credit)

EXSS 4050 3 cr. 3 hr. ▲ ●

This course offers students the opportunity to experience dance aesthetically, kinesthetically and intellectually. Representative styles from tribal through contemporary dance are covered. Videotapes, movement labs, papers, presentations, concert attendance and performance are included. Teaching in the After School Movement Program at McKay is an option. ARTS

Prerequisite: Junior or senior standing or permission.

Outdoor Education

EXSS 4060 3 cr. 3 hr. ▲

This course is designed to explore and experience the use of the outdoors as a medium in the educational process. Topics covered include introduction to outdoor education, teaching methodology, basic principles of high adventure activities, school camping and outdoor education programs. Students participate in a number of outdoor adventure activities.

Physical Education in the Elementary School

EXSS 4080 1 cr. 2 hr. ▲

This theory and practice course is designed to guide the classroom teacher in organizing a comprehensive program of physical education and recreational activities.

Movement Education

EXSS 4100 3 cr. 3 hr. ▲

Movement Education is a theoretical and an experiential course designed for working with the creative process in an interdisciplinary manner. The relationship of movement in developmental processes is explored. Movement experiences, group leadership, curriculum development and evaluation are covered. Teaching in the After School Movement Program at McKay is an option.

Programs in Recreation

EXSS 4110 3 cr. 3 hr. ▲

This course is designed to acquaint students with different types of programs in the recreation field. The development of traditional and innovative programs are explored and evaluated in the classroom and through field trips. Topics covered include program foundations, traditional and innovative curricula, program planning, implementation and evaluation.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Making Dances: Choreography and Composition

EXSS 4130 3 cr. 3 hr. ▲ ●

Opportunities to develop and analyze the structure and imagery of dances and music are offered. Each participant works improvisationally as choreographer and dancer in the development of solo performances as well as small and large group works. This course includes concert attendance, performance, reading and written assignments. L

Prerequisite: junior or senior standing or permission.

Senior Seminar in Leadership and Professional Ethics

EXSS 4200 3 cr. 3 hr. ▲

Using a case study approach in various professional topics, this capstone course focuses on the leadership skills needed in the fitness industry and the clinical environment. It also emphasizes ethical practice. Students will study pertinent literature, and write a paper on current issues.

Prerequisite: EXSS 3450.

Independent Study

EXSS 4900 1-3 cr. ▲ ●

The Independent Study is open to students who have permission of the supervising instructor and the department. Course of study, meetings, and credit are arranged upon approval.

Internship

EXSS 4950 6 cr.

Students gain 240 hours of field experience at an outside agency related either to the fitness industry or clinical physiology. Assignments are contingent upon the student's abilities, interests, career goals, and acceptance by the cooperating institution. One or two full days during the week may be required. Two on-campus meetings are required, as is a critical incidents journal, an informational interview, a comprehensive paper and an oral presentation. A minimum of six credits is required.

Prerequisites: senior standing, a 2.75 in EXSS courses, and approval of the Exercise and Sport Science department.

Directed Study

EXSS 4975 1-6 cr.

French

French for Beginners I

FREN 1000 3 cr. 3 hr. ▲ ●

The correct pronunciation, reading ability and fundamentals of grammar and syntax are taught in this class. Over the semester French gradually becomes the working classroom language. The class is designed for students with no language experience or less than two years of French at a high school level.

Note: Students with two or more years of language instruction are not admitted without permission of the instructor. CTW, GDCN

French for Beginners II

FREN 1100 3 cr. 3 hr. ▲ ●

This class serves as a continuation of FREN 1000. CTW, GDCN

Intermediate French I

FREN 2000 3 cr. 3 hr. ▲

This course includes practice in conversation practice as well as readings stressing life, customs and culture of France.

Prerequisite: two years of high school, French II and/or permission of instructor.

Intermediate French II

FREN 2100 3 cr. 3 hr. ▲

This course serves as a continuation of FREN 2000.

Methods for Teaching French in the Elementary School

***FREN 2400 3 cr. 3 hr. ▲**

The course provides techniques and materials for use in teaching French at an elementary school level. The course is required for foreign language specialization. A minimum of 12 semester hours of French or its equivalent and the instructor's permission is required to enroll.

French Civilization

FREN 3000 3 cr. 3 hr. ▲

The course covers the history, geography, fine arts and literature of the French people from the earliest times through today. Course work includes extensive readings in French.

Prerequisite: FREN 2100 or permission of instructor.

French Literature

FREN 3300 3 cr. 3 hr. ▲

This course will present a cultural, historical and sociological study of France as mirrored in selected works of French writers and thinkers. The time period is from the medieval ages through and including the 20th century. LIT

Prerequisite: FREN 2100 or permission of instructor.

French Conversation and Composition

FREN 3500 3 cr. 3 hr. ▲

This course is recommended for students who desire greater fluency in speech and writing as well as for students taking civilization and literature courses.

Prerequisite: FREN 2100 or permission of instructor.

Independent Study

FREN 4901-4903 1-3 cr. 1-3 hr. ▲

The Independent Study is open to students in the language with the permission of the supervising instructor and the department chair. Meeting times and credit are arranged upon approval.

Advanced Independent Study in French

FREN 4906 6 cr. 6 hr. ▲

The Independent Study is open to students in the language with the permission of the supervising instructor and the department chair. Meeting times and credit are arranged upon approval.

Prerequisite: minimum of 12 semester hours, 2.0 grade-average in French, and permission of Instructor, Department Chairman.

Directed Study

FREN 4975 1-6 cr. ▲

Geo/Physical Sciences

Earth System Science

GEOG 1000 3 cr. 3 hr. ▲ ●

Students receive a holistic view of Earth and the spatial relationships between its physical, chemical, geological, and biological systems. Students learn fundamental scientific principles of physical geography and discuss human-earth interactions. Topics include earth-sun relationships, atmospheric processes, physical geology, and water resources. Human impacts, such as ozone depletion, global warming, and water and air pollution, are discussed. SMT

Principles of Human Geography

GEOG 1100 3 cr. 3 hr. ▲ ●

Introduction to geographical dimension in human behavior and how this is evident in population distribution, rural and urban land use, and social, economic and political attributes of societies. CTW, GDCN

Earth, Sea, and Air

GEOG 1300 3 cr. 4 hr. ▲ ●

The course is comprised of selected topics from the Earth Sciences Learning Standards of the Massachusetts Science Curriculum Frameworks. Laboratory required. LAB, SMT

Geology

GEOG 2100 3 cr. 4 hr. ▲ ●

The course is offered in the spring semester for day students. The course is an introductory survey of the basic elements of physical and historical geology. The class is open to all students. A laboratory is required. LAB

Prerequisite: GEOG 1000 is strongly suggested.

Meteorology

GEOG 2200 3 cr. 4 hr. ▲ ●

Fundamental principles of atmospheric processes are discussed, with emphasis on mid-latitude phenomena. Tropical and severe weather are also explored. Weather forecasting techniques using real-time data are introduced. LAB

Prerequisite: GEOG1000 is recommended.

Honors Seminar Geo/Physical Sciences

LEAD/GEOG 2250 3 cr. 4 hr. ▲

This course will introduce students to the study of the natural world through a focus on a major topic in Geo/Physical Sciences.

Prerequisites: Students should have completed one math course at the college level.

Climatology

***GEOG 2300 3 cr. 3 hr. ▲**

Regional differentiation of the world into climate zones are explained. The course will cover natural, long-term past changes in climate related to sun-earth relationships (paleoclimatology). Future climate change scenarios will also be discussed. SMT

Prerequisite: GEOG 2200 Meteorology or permission of the instructor.

Computer Applications in Geography/Earth Science

GEOG 2400 3 cr. 3 hr. ▲ ●

Computer based applications to actual case studies and situations using Geographic Information Systems (GIS) as an investigation tool for geosciences. Lab exercises on PC-based GIS packages. SMT

Prerequisite: GEOG 1000 and permission of the instructor.

Oceanography

GEOG 2500 3 cr. 4 hr. ▲ ●

This course is designed to provide students with an overview of fundamental scientific concepts that describe ocean processes. Topics include marine geology (ocean basins, sediments), marine chemistry (properties of seawater), and physical oceanography (waves, tides, currents), with some discussion of biological oceanography. LAB, SMT

Map Use

GEOG 2800 3 cr. 3 hr. ▲ ●

This course considers the nature and role of maps in communicating aspects of the Earth's natural and human environments. Skills learned include map reading, relating map symbols to real world features, map analysis, extracting information from maps and map interpretation. SMT

Introduction to Secondary School Teaching

GEOG 2860 3 cr. 3 hr. ▲

This course is required of all students preparing for initial license at the secondary level. It is a sophomore level course for full-time undergraduates and the first course taken by transfer students. It is taught at the local high school and is a clinical laboratory experience. This course includes a 25-hour prepracticum requirement and is a prerequisite for other certification course requirements. Students become familiar with the complexities of secondary school teaching and its demands. The course gives faculty the opportunity to screen students and give students the opportunity to test their commitment to teaching.

Geographic Economic System

***GEOG 3000 3 cr. 3 hr. ▲**

The course analyzes factors underlying the spatial distribution of primary, secondary and tertiary economic activities, with emphasis on locational processes in commercial economies.

Political Geography

***GEOG 3100 3 cr. 3 hr. ▲**

The course examines dependent and independent, political units, boundary disputes, strategic areas, buffer zones and the function of international organizations.

U.S. and Canada

***GEOG 3200 3 cr. 3 hr. ▲ ●**

The course includes U.S. and foreign area studies. Students conduct regional and systematic analysis based upon geographic elements influencing domestic evolution and international relations.

Prerequisite: GEOG 1000.

Introduction to Historical Geology

GEOG 3250 3 cr. 4 hr. ▲

Offered fall semester in even years for day students.

This course studies the physical history of the Earth based on evidence from the rock and fossil records from the early Paleozoic Era through the present. The evolution of life forms, subjective and absolute dating methods, fossil identification and fossil evidence supporting plate tectonics theory are some of the topics studied. Laboratory is required.

Prerequisite: GEOG 2100 or permission of instructor.

Common Rocks and Minerals

GEOG 3270 3 cr. 4 hr. ▲

Offered spring semester in odd years for day students.

Major rock and mineral types are studied. Considerable time is spent on field and laboratory identification techniques. Mineral crystal systems and rock and mineral forming processes are also studied. Laboratory is required.

Prerequisite: GEOG 2100.

Population Geography

GEOG 3400 3 cr. 3 hr. ▲

The course addresses population processes and characteristics relative to resources in both economically developed and underdeveloped countries and regions. Course material provides both a systematic and regional view of world population problems.

Geographic Information Systems

GEOG 3500 3 cr. 3 hr. ▲ ●

Introduction to basic concepts and applications of geographic information systems (GIS). Lab exercises on PC-based GIS packages. SMT

Prerequisite: GEOG 1000.

Atmospheres III—Planetary Atmospheres

***GEOG 4110 3 cr. 3 hr. ▲**

This course seeks to explain the similarities and differences between the Earth's atmosphere and the atmospheres of the planets and moons in our solar system. Each atmosphere is studied to determine its chemical composition, thermal structure, energy budget, pressure, wind systems, clouds, precipitation and other pertinent meteorological phenomena.

Prerequisite: GEOG 2200.

Geomorphology

GEOG 4200 3 cr. 4 hr. ▲

The course provides a comprehensive study of land forms and their origins. Laboratory is required. LAB

Prerequisite: GEOG 2100, Geology or permission of the instructor.

Structural Geology

GEOG 4220 3 cr. 4 hr. ▲

Offered in the fall semester in odd years for day students.

This course studies rock structures developed by the application of deformational forces. Topics covered include the elementary concepts of stress and strain and the geometry of joints, faults, folds, foliations and lineations. LAB

Prerequisites: GEOG 2100, PHYS 2300, MATH 1300 or permission of the instructor.

Urban Geography

***GEOG 4400 3 cr. 3 hr. ▲**

Theory and models of the functions, origin, development, structure, and distribution of cities; land-use classification; geographic aspects of city planning, with GIS (geographic information systems) based applications to actual cases studies. CTW, GDCN

Remote Sensing of the Environment

GEOG 4500 3 cr. 4 hr. ▲

Techniques in the use of satellite and aerial imagery as applied to landscape analysis and resource management are studied. Laboratory is required.

Prerequisite: GEOG 2100.

Environmental Hydrogeology

GEOG 4600 3 cr. 4 hr. ▲

Offered spring semester in even years for day students.

A case study approach is used to apply basic principles of geology to environmental problems caused by flooding, groundwater contamination, pollution due to human activity and landslides, among other topics. Laboratory is required.

Prerequisite: GEOG 2100 or GEOG 4200, CHEM 1300, MATH 1300, PHYS 2300 or permission of instructor.

Geographic Perspectives on Conservation

***GEOG 4700 3 cr. 3 hr. ▲**

The course provides an analysis of natural resources problems arising from changes in technology, population pressure and concern with the quality of environment.

Prerequisite: GEOG 1000.

Computer Cartography

GEOG 4800 3 cr. 3 hr. ▲

The course treats the principal aspects of cartography as a communication process. Taken into consideration are the nature and purpose of mappable information, elements of map design and methods involved in map construction. SMT

Special Methods in Teaching Earth Science

GEOG 4850 3 cr. 3 hr. ▲

The course reviews lesson planning, selection of materials, curriculum development and relevant research.

Prerequisites: ENGL 4700 (8-12 Licensure) and EDUC 3010 (5-8 Licensure).

Earth Science Practicum in a Secondary School I and II

GEOG 4860, 4870 12 cr. ▲

For the teaching practicum in earth science, students are assigned to cooperating schools for a semester of student teaching.

Independent Study in Geography

GEOG 4900 1, 2, 3 cr. ▲ ●

The Independent Study provides exceptional students with the opportunity to do research with faculty guidance in a subject or problems of geographic significance.

Prerequisites: 12 hrs. of Geography and permission of instructor.
Hours and credit by arrangement.

Internship in Geography

GEOG 4940, 4950, 4960 3, 6, 12 cr. ▲

The Internship provides work experiences in private and governmental concerns. Assignments depend on the needs of the participating agency and interests and vocational objectives of the student.

Prerequisites: junior or senior standing
and permission of internship coordinator.

Directed Study

GEOG 4975 1-6 cr. ▲ ●

German

Please note that German courses are not currently offered on a regular basis.

German for Beginners I

***GER 1000 3 cr. 3 hr. ▲**

The correct pronunciation, reading ability and fundamentals of grammar and syntax are taught in this class. Over the semester German gradually becomes the working classroom language. Students use German language films, cassettes and Apfeldeutsch, a computer course for German, as part of their instruction. Students with two or more years of German are not admitted without permission of the instructor. L, C

German for Beginners II

***GER 1100 3 cr. 3 hr. ▲**

This class is a continuation of GER 1000.

Intermediate German I

***GER 2000 3 cr. 3 hr. ▲**

This course includes practice in conversation as well as readings stressing life, customs and culture of Germany.

Prerequisites: two years of high school German
or GER 1000 and GER 1100.

Intermediate German II

***GER 2100 3 cr. 3 hr. ▲**

This class is a continuation of GER 2000.

Modern German Literature in Translation

***GER 2800 3 cr. 3 hr. ▲**

The course introduces the varied creativity of German writers of fiction, drama and poetry of the 20th century. The German film contribution of the 1920's with feature-length films is included. Readings are in translation and the course is conducted in English.

Modern German Culture: The Road to Hitler

***GER 2900 3 cr. 3 hr. ▲**

The course examines the cultural factors in music, art, literature, and film, which illuminate the events leading to National Socialism. Readings focus on translated materials, especially in literature, which help to explain why the Germans embraced Adolph Hitler. The class includes a significant audio-visual component and is given in English.

German Conversation and Composition

***GER 3500 3 cr. 3 hr. ▲**

This course is designed to increase the student's ability to write and speak German. Students are expected to write compositions on topics developed orally in class.

Prerequisite: GER 2100 or permission of instructor.

Independent Study in German

***GER 4901-4903 1-3 cr. 1-3 hr. ▲ ●**

Advanced Independent Study in German

***GER 4906 6 cr. 6 hr. ▲ ●**

The Independent Study is open to students studying German with the permission of the supervising Instructor and the department chairman. Meeting times and credit are arranged with approval.

Directed Study

***GER 4975 1-6 cr. ▲**

Graphics

Interdisciplinary Graphics Seminar

▲

Through lectures, presentations by speakers and projects, students study advanced topics in graphics. The topics are chosen to emphasize state-of-the-art technologies in graphics. The course is administered by faculty from the Graphics Center and the material varies from semester to semester to meet the needs and interests of the participants.

History

Note: All history courses at or above the 2000 level have as a prerequisite ENGL 1200 or HIST 1000 or HIST 1100 or HIST 1150 or HIST 1400 or HIST 1500 or HIST 1900 or AMST 1800.

World Civilizations I

HIST 1000 3 cr. 3 hr. ▲ ●

This course covers the beginnings of humanity to 1350. It investigates ancient empires and the development of the great world religions. The interdependence of Eurasia is stressed while the independent existence of the Amerindian and African empires is also explored. CTW, GDCN

World Civilizations II

HIST 1100 3 cr. 3 hr. ▲ ●

This course investigates the period 1350 to 1815. The rise of Europe, the resurgence of Islam, the alteration of the Americas and the continued independent existence of Asiatic and African empires is studied. Additional emphasis is placed on worldwide interdependence. CTW, GDCN

World Civilizations III

HIST 1150 3 cr. 3 hr. ▲

This course studies the major wars as well as the social, economic and political changes in the world from 1815 to the present. Major themes covered are nationalism, global interdependence and the effects of technology upon peoples. CTW, GDCN

United States History I

HIST 1400 3 cr. 3 hr. ▲ ●

The course is a survey of United States History beginning with colonial times and continuing through the era of Reconstruction following the Civil War. CTW

United States History II

HIST 1500 3 cr. 3 hr. ▲ ●

The course is a survey of the United States from 1877 to the present. CTW

Introduction to History: Freshman Seminar

HIST 1900 3 cr. 3 hrs. ▲

The Freshman Seminar will explore the interaction of historical actors and events with geography and time. This course is topically arranged according to the interests and specialization of the instructor. It is, moreover, writing and reading intensive. CTW

Historical Methods

HIST 2000 3 cr. 3 hr.

Students are introduced to historical thinking and historical methods in research and writing. We will cover bibliographic research aids and online search engines, the major historical fallacies, as well as analysis of primary, secondary, and web-based documents. This course will satisfy history students' computer literacy requirement.

Pre-requisite: ENGL 1100.

Ancient Greece and Rome

HIST 2020 3 cr. 3 hr. ▲

This survey of ancient Greece and Rome begins with the settlement of Bronze Age Crete and concludes with the fall of the Roman Empire. It stresses the political, religious, economic, intellectual and military developments of the ancient west. Particular emphasis is placed on innovations in art, architecture, poetry, philosophy and history.

Early Christianity

HIST 2050 3 cr. 3 hr. ▲

The course is a survey of major developments within Judaism and Christianity between 300 B.C.E. and 500 C.E. Using both primary and secondary sources, it explores historically and thematically the socio-economic and political conditions of the period.

The Byzantine Empire

HIST 2054 3 cr. 3 hrs. ▲ ●

This course presents an overview of Byzantine history and civilization, from the Empire's foundation around 330 to its demise in 1453, focusing on the major political, social, cultural, economic, and religious developments. It examines topics such as the emergence of the Byzantine state out of the collapse of its Roman predecessor, the unique synthesis of Roman, Greek, Christian, and other elements achieved within the Byzantine world, the Empire's thousand-year struggle for survival against any array of formidable foreign adversaries and internal challenges, and the spread of byzantine and Orthodox Christian culture to neighboring regions and peoples. This course explores a wide variety of primary sources, secondary sources, and material culture to assess the broader significance of the Byzantine Empire in human history. CTW, GDCN

Prerequisites: ENGL 1200, HIST 1000, 1100, 1150, 1400, 1500 or AMST 1800.

The European Renaissance

HIST 2070 3 cr. 3 hr. ▲

This course explores the idea of a European Renaissance, or a reemergence of and response to classical Greek and Roman ideals. Chronologically, the period bridged the medieval and early modern eras. Geographically, its effects were first felt in Italy, then France, England and the various principalities of the Holy Roman Empire. Intellectually, it embraced nearly every field of human endeavor. CTW, GDC

The European Enlightenment

HIST 2080 3 cr. 3 hr. ▲

The century of Enlightenment is examined through a history of ideas. Students will explore the many answers to the question, What is Enlightenment? Readings include cultural history, as well as 18th-century philosophy and anti-Enlightenment thought. CTW, GD

20th-Century Europe

HIST 2100 3 cr. 3 hr. ▲

This course studies culture, science and social developments as well as domestic and international politics from the first World War to the present.

Europe Today

HIST 2110 3 cr. 3 hrs. ▲

Europe today is an introduction to the major themes in modern European history and political science. The focus will be on the roots of contemporary Europe, European politics and economics, ethnic and religious conflict, citizenship and immigration, European culture and Europe's place in the world and relationship with the United States.

U.S. Economic History

HIST 2140 3 cr. 3 hr. ▲ ●

This course will take a panoramic view of the economic history of the United States, surveying the course of U.S. history from the early European settlement of the 1600s and 1700s up until the contemporary age of globalization, all from the perspective of and with an emphasis upon the economic matters that informed that history. CTW

20th-Century Germany

HIST 2150 3 cr. 3 hr. ▲

This course surveys the history of modern Germany from the origins of the Weimar Republic and National Socialism through German reunification.

Nazi Germany: Hitler's Rise and Fall

HIST 2155 3 cr. 3 hr. ▲ ●

The course is a detailed inquiry into the rise and fall of Nazi Germany. Examining the Weimar Republic, the course will analyze how Hitler and the Nazis gained power. Analysis of the Nazi dictatorship will focus on how Hitler maintained power, how the Nazi years shaped German society, Nazi wars of aggression and the total defeat of Nazi Germany. CTW, GDC

Holocaust

HIST 2160 3 cr. 3 hr. ▲

This course surveys the Holocaust, examining the experience of victims, perpetrators bystanders and survivors.

Armenian Genocide

HIST 2170 3 cr. 3 hr. ▲

In 1915, Armenians, men, women, and children, were forced out of their homes in Turkey, slaughtered, and driven across the desert in a genocide that preceded the Holocaust by more than two decades. Despite the enormity of the crimes carried out against Armenians, this genocide was generally overlooked for many years. This course will examine the long and short-term causes of genocide, the implementation of genocide and the legacy of the Armenian genocide. CWT, GDC

Honors Seminar History

LEAD/HIST 2225 3 cr. 4 hr. ▲

Leadership Academy students will be introduced to key historical issues and methods. Students will engage in intensive study of a historical topic or theme to be selected by the instructor. CTW

The Silk Roads in History and Culture

HIST 2290 3 cr. 3 hrs. ▲ ●

This course presents an overview of the history of cultural and economic exchange across Eurasia associated with the "Silk Roads" from the earliest stages of their development through about 1500. It explores such topics as the physical, cultural, and political geography of Inner Asia, the interactions between sedentary and nomadic peoples, the spread of religion, culture, and technology, and, most particularly, the mechanisms and products of East-West overland trade. This course examines a wide variety of primary and secondary sources, as well as material culture evidence, in order to assess the world historical significance of the Silk Roads in the human experience. CTW, GDCN

Prerequisites: ENGL 1200, HIST 1000, 1100, 1150, 1400, 1500 or AMST 1800.

African-American History

HIST 2300 3 cr. 3 hr. ▲

The course is an investigation of the African-Americans in the United States from their African origins to the present. Emphasis is placed on the role African-Americans play in the economic, political and social life of the United States. CTW

Key to Course Offerings

Designates the course meets requirements for the following clusters.

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second third or fourth year.

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Massachusetts History
HIST 2400 3 cr. 3 hr. ▲

The course studies the political, social, and economic trends of the Bay State from Plymouth Rock to the Kennedy clan. I

Italian American History: Immigration and Identity
HIST 2420 3 cr. 3 hr. ▲

The course examines the history of Italians in America and seeks to explain the causes and consequences of immigration, both at the national level and a personal level. Topics will include an examination of the unification of Italy and the conditions which impelled mass migration, regional differences and various responses to economic development in the late 19th and 20th centuries, the experience of migration and the adjustment to life in America.

Prerequisite: HIST 1500.

Women in U.S. History to 1870
HIST 2490 3 cr. 3 hr. ▲

The course is a multicultural examination of women of all roles and class in the pre-colonial era through 1870. The lady and the mill-girl polarity in the antebellum era, the emergence of the women's rights movement and women in Victorian culture are covered

Women in U.S. History: 1870 to the Present
HIST 2500 3 cr. 3 hr. ▲

The course studies women in America, including the struggle against discrimination and for the ballot, as well as the history of various women's groups. Emphasis is placed on women of all roles, class and ethnicity.

Medieval History
HIST 2530 3 cr. 3 hrs. ▲ ●

This course examines European history from the collapse of the ancient Roman Empire to about 1500. This course will investigate the following topics: the Christianization of the Roman world, the third century crisis and subsequent disintegration of the western half of the Roman Empire during the fourth and fifth centuries, the new syntheses of Roman civilization and other elements achieved by the Byzantines, the early Muslim empires, and the Franks in the West during the Carolingian period, the social, economic, and religious developments that took place at the demise of the Carolingians, the resurgence of Europe and the Crusades, the rise and downfall of the papal monarchy and the development of medieval kingship, and the end of the medieval era brought about by the changes and catastrophes of the terrible fourteenth century. This course explores a variety of primary sources, secondary sources, and material culture to assess the wider significance of the medieval era to European history and the human experience. CTW, GDL

Prerequisites: ENGL 1200, HIST 1000, 1100, 1150, 1400, 1500 or AMST 1800.

U.S. Military Experience
HIST 2600 3 cr. 3 hr. ▲

The class surveys the American wars from the Revolution until today. Course work stresses the changing roles of infantry, cavalry and artillery over time and also examines the concept of national security at various historical times and under varying conditions.

History of Mexico
HIST 2700 3 cr. 3 hr. ▲

Surveys pre-Columbian times to the present-day, beginning with indigenous background and continuing though conquest, colonialism and the century of social unrest that began with the struggle for independence in 1810. Concludes by considering the Mexican Revolution and its implications for Mexico's contemporary political and social stability and economic development. CTW, GDCN

Comparative Slavery
HIST 2722 3 cr. 3 hr. ▲ ●

The course introduces students to the evolution of slavery and the slave trade in the Atlantic World from its roots in the Mediterranean region and Africa to its transformation in the Caribbean basin as a forerunner of modern industrial production. The approach of the course will be comparative in the sense that students will see how slavery has changed over time, and how it differed from place to place and from plantation to plantation. CTW, GDCN

Pre-requisite: ENGL 1200.

Women in Latin America History
HIST 2745 3 cr. 3 hrs. ▲ ●

In this course students will utilize the concept of gender to explore the changing role of women in Latin America from pre-Columbian times to the twentieth century. They will focus on the activities and status of women in Aztec and late medieval Spanish society and examine the changes that occurred during the following eras and events: the Spanish conquest, the colonial era (1550-1810), the independence wars, and the national era (1820-present). CTW, GDCN

Prerequisite: ENGL 1200 or any history course.

The Conquest of America
HIST 2760 3 cr. 3 hr. ▲

The course is an introduction to the societies, individuals and legal and moral issues involved in the European conquest of the indigenous peoples of the Western Hemisphere to roughly 1650. The path of conquest is traced chronologically to provide an understanding of the Ibero-Mediterranean milieu that produced the early explorer-conquerors and the dominant indigenous civilizations of the Caribbean, Mesoamerica, the Andes, and coastal Brazil. CTW, GDCN

Latin American Revolutions
HIST 2770 3 cr. 3 hr. ▲ ●

This course will address the following questions through a survey of 20th century Latin American revolutions: What is revolution? What are its causes? Why do some revolutions succeed, while others fail? What do the revolutions of 20th century Latin America tell us about the specific countries in which they occurred, and about the region as a whole? CTW, GDCN

Far East before 1800
HIST 2800 3 cr. 3 hr. ▲

The class examines the development of Chinese, Japanese, Korean and Southeast Asian civilization from the earliest time until the middle 19th century period. Political, military, and economic background is covered, but special emphasis is placed on cultural history.

Modern Far East
HIST 2850 3 hr. 3 cr. ▲

The course covers the major developments in China and Japan from the 19th century to the present. It highlights the socio-economic and political transformations under the challenges of imperialism and nationalism.

Introduction to Secondary School Teaching
HIST 2860 3 cr. 3 hr. ▲

This course is required of all students preparing for initial license at the secondary level. It is a sophomore level course for full-time undergraduates and the first course taken by transfer students. It is taught at the local high school and is a clinical laboratory experience. This course includes a 25 hour prepracticum requirement and is a prerequisite for other certification course requirements. Students become familiar with the complexities of secondary school teaching and its demands. The course gives faculty the opportunity to screen students and gives students the opportunity to test their commitment to teaching.

Prerequisite: 2.5 GPA or permission of instructor.

Middle East History Since 1500
HIST 2920 3 cr. 3 hr. ▲

The course covers political, cultural, religious and military history of the modern nation states of Middle East. The rise and fall of the Ottoman Empire is also covered.

Modern African History
HIST 2930 3 cr. 3 hr.

A survey of 19th and 20th century African history, this course investigates the slave trade, imperialism, development and the rise of African nationalism.

Women in the Middle East

HIST 2970 3 cr. 3 hr. ▲

The course is a multi-cultural examination of the lives of women in the twentieth century Middle East, including women "of" the region as well as women "in" the region. The course examines the lives of women and their role in various societies including Israel, Lebanon, Iraq, and Egypt as well as foreigners who lived in the region and their impact as diplomats, historians, anthropologists, and travelers. The course uses historical narrative, biography, and video to explore the lives of a broad spectrum of women in the Middle East.

Prerequisite: HIST 1000.

Modern Italian History: Risorgimento to Today

HIST 3000 3 cr. 3 hr. ▲

Surveys the political and social development of modern Italy from the origins of the Risorgimento in the 1840s through the end of political unification in 1870, immigration and the diaspora of late 19th century, post WWI instability and the rise of Mussolini's fascist regime, post W.W.II economic resurgence, and concludes with a survey of contemporary political and social issues.

India Since 1500

HIST 3200 3 cr. 3 hr. ▲

This course discusses India's traditional society and religion as also the legacies of the Mughals, the British and the nationalist movement. By addressing the dramatic cultural and economic changes set in motion since the 16th century, it examines the impact of Islamic, colonial and nationalist politicians in modern India.

The French Revolution

HIST 3420 3 cr. 3 hr. ▲

This course treats the Revolution not simply as an event, but also as an idea. Thus, we examine the origins and various manifestations of the revolutionary spirit between 1789 and 1815. Heavy emphasis is placed on primary sources, as well as theoretical and historiographical issues. CTW

American Colonial History

HIST 3500 3 cr. 3 hr. ▲

This course covers the exploration, settlement patterns, imperial system, social structure, rise of representative government in America and the 18th century wars for empires.

The American Revolution

HIST 3550 3 cr. 3 hr. ▲

The course covers the coming of the Revolution, war tactics and strategy, problems of the Confederation period and the American Constitution.

U.S. Civil War

HIST 3600 3 cr. 3 hr. ▲

The course examines politics, slavery, and abolitionism. Political, military, and diplomatic aspects of the war and the failure of reconstruction is also covered. CTW

U.S. Gilded Age and Progressive Era

HIST 3655 3 cr. 3 hr. ▲

The major movements of the late 19th and early 20th centuries in United States history are studied in this course, including rise of middle class culture, populism, urbanization, trade unionism, consumerism and progressivism.

U.S. Interwar Period

HIST 3700 3 cr. 3 hr. ▲

This course covers topics in American politics, economics and society from 1920-1945, with special emphasis on reform movements, the great Depression and World War II.

Urban America

HIST 3710 3 cr. 3 hr. ▲ ●

This course examines the growth and development of cities in the United States from the late 19th century to the present, focusing on four broad, overlapping subjects: growth and differentiation within urban systems and city-regional relations, the built environment, urban society and group relations, and civic life. CTW

The Civil Rights Movement

HIST 3720 3 cr. 3 hr. ▲ ●

This course examines the modern Civil Rights Movement in the larger historical context of the African-American freedom struggle, from its roots in abolitionism and Reconstruction through the period of legalized racial discrimination to the dismantling of legal segregation to the ongoing persistence of white privilege. CTW

Vietnam: A Century of Conflict

HIST 3740 3 cr. 3 hr. ▲

The roots of conflict in Vietnam are examined from a variety of international perspectives. After a brief introduction to Vietnam's geography, culture, and history in Southeast Asia, the development of Vietnamese resistance to colonialism in the Chinese, French, and Japanese periods is examined. The emergence of nationalism and the First Indochina War (1945–54) between France and Vietnam, the origins of American involvement, Vietnam's role in American Cold War ideology and the Domino theory, as well as the evolution of American policy, military aid to France, superpower diplomacy at the Geneva conference and the division of Vietnam will be studied. The course concludes with an examination of how the war has been memorialized by those nations involved and post—1975 political changes in Vietnam including the doi m oi economic revolution and the resumption of U.S.-Vietnam relations.

Prerequisite: Suggested students have completed HIST 1400 or HIST 1000.

Cold War

HIST 3750 3 cr. 3 hr. ▲

This course examines the impact of the Cold War in global perspective. Major themes include the developing U.S.-Soviet conflict in Europe, nuclear weapons proliferation, Third World revolutionary nationalism, detente, the collapse of the USSR and post-war globalization. I

China Since 1900

HIST 3760 3 cr. 3 hr. ▲ ●

This course will address major themes in China's tumultuous but dramatic transformation, from being a humiliated nation with an enormous debt (at the time of the Boxer Rebellion) to becoming a technological and economic power house in the world, between 1900 to the present. China's history has been molded by a myriad of actors, circumstances, ideologies, internal and external forces. It will utilize a variety of primary sources and the most recent scholarship on this period. CTW, GDCN

Prerequisite: Any one of the following courses: ENGL 1200, HIST 1000, HIST 1100, HIST 1150, HIST 1400, HIST 1500 or HIST 2850.

U.S. In World Affairs: 1898 to the Present

HIST 3850 3 cr. 3 hr. ▲

The class examines America as a global power. Events covered are World War I, the era of isolation, origins of World War II, American involvement and wartime diplomacy, breakdown of East-West relations, the Cold War, and the Korean and Vietnam conflicts and the post Cold War world.

Frontier in American History

***HIST 3900 3 cr. 3 hr. ▲**

The frontier is studied as a historical, social, economic, and psychological process to determine its impact on American development.

Genocide in World History

HIST 4015 3 cr. 3 hr. ▲

The class investigates the definition and different possible origins of genocide in world history. The class examines major cases of cases of genocide including the Armenian Genocide, the Holocaust, Cambodia, and Rwanda. The class concludes by focusing on genocide today and the prevention of genocide.

Technology and American Society

HIST 4100 3 cr. 3 hr. ▲

This course will explore the history of the U.S. through the lens of technology. Topics to be covered include the pre-industrial era, industrialization, transportation revolutions, urbanization, the rise of engineering, technological systems, the impact of the automobile, the communications revolution and the ethics of technology.

Prerequisites: HIST 1400 and HIST 1500.

History of Political Theory

HIST 4200 3 cr. 3 hrs. ▲ ●

This course traces the development of political philosophy from the early modern up to the birth of the modern. In a series of readings we will examine such concepts as the "state of nature" and its concomitants—natural law, natural rights, civil society, the "primitive," the right to property (private or otherwise)—as well as the material foundations of social and political arrangements, warfare and its role in the state of nature and/or civil society, the power of the executive, and even slavery. By its very nature this course is interdisciplinary, as it is both an introduction to the history of ideas and a survey of political philosophy.

Senior Seminar

HIST 4500 3 cr. 3 hr. ▲

The seminar provides guided readings and research on a specified topic. It is designed to enrich research and analytical skills of future teachers and those desiring to enter graduate or other professional schools.

Special Methods in Teaching of History

HIST 4850 3 cr. 3 hr. ▲

This course covers special techniques for the teaching of history and their relationship to the principles of general methods. The course is taught at the local high school and is a clinical laboratory experience. A pre-practicum of 25 hours is required.

Prerequisite: completion of HIST 2860, 2.75 overall GPA, 3.0 program GPA and passing scores on the Communication/Literacy MTEL and History MTEL and a 2.75 overall GPA and 3.0 in biology, Communication/Literacy MTEL and Subject Area Exam.

History Practicum in a Secondary School I and II

HIST 4860, 4870 6 cr. ▲

In the practicum students are assigned to cooperating schools for a semester of student teaching. A 3.00 GPA in History and an overall GPA of 2.75 are required to enter the program. In addition, students must receive a passing score on the MTEL in general literacy and history prior to entering the practicum.

History Practicum Seminar

HIS 4861 1 cr. 1 hr. ▲

One credit course taken in conjunction with the student teaching experience designed to support candidate completion of major practicum assessments: the Teacher Work Sample and Pre-Service Performance Assessment.

Prerequisite: Admission to the practicum.

Independent Study in History

HIST 4900 ▲ ●

The Independent Study is open to students majoring or specializing in History with the permission of the supervising instructor and the department. Meeting times and credit are arranged upon approval.

Directed Study

HIST 4975 1-6 cr. ▲ ●

Human Services

Introduction to Human Services

HMSV 1100 3 cr. 3 hr. ▲ ●

This core course serves as an introduction to the breadth and nature of human services work. Students will become acquainted with a variety of human service agencies at local, state and federal levels (i.e., their organization and administration, potential as hiring placements, and scope of services). The course facilitates students' awareness of the theoretical perspectives, issues and ideological dilemmas in the field of human services. The required supervised practicum experience (30 hours within a ten week time span) allows students to "shadow" human service workers in local agencies as they go about their daily activities, thereby gaining firsthand understanding of the nature of the work and the realities of a profession in the discipline of social welfare. This course is a prerequisite for most other Human Services courses.

Community Resources

***HMSV 1150 3 cr. 3 hr.** ▲ ●

This course acquaints students with the services of a variety of public (federal, state and local) and private voluntary non-profit agencies which provide services for various populations. Students learn the range of services provided, how to make referrals to and obtain services from agencies, and how the agencies are operated (including staffing, funding, and administration). This course may emphasize special types of agencies/populations in different semesters.

Prerequisite: HMSV 1100.

Research Methods in Human Services Practice

HMSV 2050 3 cr. 3 hr. ▲ ●

This core course provides the knowledge and skills necessary to use research to inform practice in human services. Students will learn the basic ideas governing scientific inquiry in applied settings, including the formulation of research questions and review of related scientific literature. Emphasis will be placed on the basic skills, including appropriate statistical techniques, required to understand and participate in community needs assessments, program evaluations, consumer satisfaction studies and similar practical research projects. Students will develop an understanding of both the ethical considerations (including the role of institutional review boards) and the issues related to human diversity involved in performing, evaluating and using research with human participants.

Prerequisite: HMSV 1100.

Crisis Intervention

HMSV 2400 3 cr. 3 hr. ▲ ●

This course focuses on the concepts and techniques of crisis intervention. Many individuals are faced with crisis situations, such as job loss, unwanted pregnancy, divorce, medical procedures, death and dying and so forth. Students are exposed to the specialized short-term techniques that have been developed to help people in these situations. A supervised practicum (30 hours) in an agency is required.

Prerequisites: HMSV 1100, HMSV 2500, PSY 2350, or permission of the instructor.

Interviewing Techniques

HMSV 2500 3 cr. 3 hr. ▲ ●

This course is designed to help the student, whose goal is to be involved in a helping profession, learn about the problems and processes of interviewing while developing basic skills needed to become an effective interviewer. The course includes assigned readings, class discussions, audio and videotaped simulated interviews, demonstrations and practice sessions. Students' self-evaluations of their performance in videotaped simulated interviews serve as primary learning tools.

Prerequisite: HMSV 1100 and permission of the instructor. Students must pre-register in the semester prior to the course.

Group Work

HMSV 2900 3 cr. 3 hr. ▲ ●

This core course focuses on group work in human services agencies and exposes students to the theories and techniques of working with clients in groups. Students have opportunities to observe and co-lead simulated groups. A supervised practicum (30 hours) in an agency is required.

Prerequisites: HMSV 1100, HMSV 2500 and permission of the instructor. Students must pre-register in the semester prior to the course.

Addictive Behaviors

HMSV 2950 3 cr. 3 hr. ▲ ●

This course is designed for students who plan a career in the helping professions (including education), or who wish to understand the cognitive, emotional, social and biological correlates of alcohol and other drug abuse, or other addictive behaviors. A framework is presented for viewing such compulsive behaviors as part of a continuum from "normal" to "dysfunctional," and controversies in the field are discussed. Students will be exposed to models of addiction, a classification of drugs, prevention of alcohol and other drug abuse, and information necessary to work with clients who are affected by addiction, including assessment and diagnosis, modalities of treatment, the role of support groups and relapse prevention. In addition to lectures and class discussions students are required to attend community support group meetings and to participate in a community prevention project (e.g., the Great American Smokeout).

Prerequisite: HMSV 1000.

Managing the Non-Profit Agency

HMSV 3000 3 cr. 3 hr. ▲ ●

This course examines administrative functions and their relationship to organizational effectiveness and efficiency. The internal and external politics of agency survival are addressed, and theoretical concepts of management and leadership styles are explored. Lectures and class discussion are supplemented by panel discussions by practicing professionals, field-based classes, and current journal research. *A supervised practicum (20 hours) in an agency is required.*

Prerequisite: HMSV 1100.

Working with the Aging

***HMSV 3200 3 cr. 3 hr.** ▲ ●

The course explores past as well as contemporary philosophies, practices and processes of working with the aging. Further, the course examines the various roles and practices utilized by social support networks in maintaining the social, psychological, and physical well-being of the aged. *A supervised practicum (20 hours) is required.*

Prerequisite: HMSV 1100.

Building Community Supports for Persons with Disabilities

HMSV 3300 3 cr. 3 hr. ▲ ●

The purpose of this course is to introduce students to issues, policies, laws and methods and emerging practices regarding educational and community services for persons with disabilities. The student will become acquainted with the challenges faced by individuals with disabilities and their families when planning for educational and adult life "Transition" from school to the human services systems and building individual futures will be examined. Fiscal and policy issues confronting educational and community supports such as home, work, recreation, medical services, transportation and interpersonal/family relationships will be discussed.

Prerequisite: HMSV 1100 or SPED 2150.

Abuse and Neglect within the Family

HMSV 3500 3 cr. 3 hr. ▲ ●

This course provides students with an overview of the abuses of power within the family and within interpersonal relationships. Students will learn about the symptoms of major types of maltreatment, the impact of abuse and neglect on child development and adult functioning, and the dynamics of abusing/neglectful families. They will explore the role of substance abuse and domestic violence on the integrity of individual family members. Students will examine the forms of abusive and neglectful practices against family members of all ages, from the prenatal period to elder and adulthood. Students will become acquainted with protective agencies, including DSS, DPPC, and Elder Affairs, and will learn how to file reports, assess cases, and provide case management and treatment options. In addition to being exposed to didactic material, students will be challenged to examine their own attitudes, prejudices and reactions to abused an neglected individuals and the systems that try to help them, including protective and legal.

Prerequisites: HMSV 1100 and PSY 2200.

Assessment and Intervention

HMSV 3600 3 cr. 3 hr. ▲ ●

This core course expands on Interviewing Techniques and further provide practical experience in assessment skills and intervention strategies. The course approaches clients in context as members of families, schools and other groups. Special focus is given to (1) understanding family systems theory and how it can be applied to interventions with families and within schools and agencies; (2) developing a working understanding of the DSM IV classification system for mental disorders, including the ethical issues involved in diagnosing and choosing treatments for clients; (3) designing behavioral interventions; and (4) applying a culturally sensitive perspective to working with clients. Repeated presentations of case studies will give students an appreciation of the experience of working with ongoing cases.

Prerequisites: HMSV 1100, HMSV 2500, PSY 2200, PSY 2350 and permission of the instructor. Students must pre-register in the semester prior to the course.

Professional Issues in Human Services

HMSV 3700 3 cr. 3 hr. ▲ ●

This core course is designed to develop student awareness of the professional issues that affect the roles and responsibilities of human service workers, with particular emphasis on the supervisory relationship. Students explore the dilemmas and challenges that face the practitioner within the context of legally and ethically responsible human service work. A stronger knowledge is gained of the rights and responsibilities of client, human service worker and supervisor.

Prerequisite: HMSV 1100 and two additional HMSV courses one of witch must have a practicum (HMSV 2400, 2900, 3800 or considerable experience human services related employment).

Case Management

HMSV 3800 4 cr. 3 hr. ▲ ●

This core course focuses on the process of case management in a variety of human service settings. It is designed to provide the knowledge and practical skills necessary to collect, organize, interpret, and report on information related to clients' needs, functioning and progress, to establish and monitor service plans, to broker services, and to evaluate service provision. Examples of case management in schools, courts, hospitals, clinics, and other human service agencies will be provided. *A supervised practicum (90-hours) in an approved setting is required.* During this practicum, students will become familiar with the agency's philosophy and operation, including procedures and formats for data/information gathering; case reporting; case conference; record storage, release and transmittal; and procedures to ensure security and confidentiality of all case materials. This course meets the LA&S requirement for Writing for the Human Services major.

Prerequisites: HMSV 1100, HMSV 2500, PSY 2200, PSY 2350 and permission of the instructor. Students must pre-register in the semester prior to the course.

Internship in Human Services

HMSV 4870/4880 6 cr. 15 hr. ▲ ●

Students work in an agency 15 hours per week throughout the school year (6 credits per semester for two semesters). This placement begins only in September.

Key to Course Offerings

Designates the course meets requirements for the following clusters.

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year.

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HMSV 4890 12 cr. 30 hr. ▲ ●

This option is a block placement of 30 hours per week for one semester, either Fall or Spring (12 credits, one semester). Internship is the structured experience that allows senior Human Services majors to integrate and apply skills and theory in a field-based setting under the supervision of a qualified professional. Placements may be direct service or administrative. Examples of the wide variety of settings include mental health agencies, social services, hospitals, prisons, family service agencies, probation departments, residential programs, nursing homes, community advocacy organizations, crisis centers, and human resource departments in businesses and other organizations. While in placement, students participate in a weekly seminar on campus, in which they share their experiences and develop a heightened awareness of their placement site and the larger system of human services.

Prerequisites: completion of all core courses in Human Services and successful completion of the Internship eligibility requirements. Students must have completed their prerequisites at least one semester before taking Internship and must pre-register with the Field Placement Office at the beginning of the semester before they plan to start placement.

Independent Study

HMSV 4900 1-6 cr. 3-18 hr. ▲ ●

Independent Study is offered by request to outstanding students of junior or senior standing and requires approval of the professor, the Human Services Review Committee, and the chairperson of the Behavioral Sciences Department. Independent Study may take the form of special advanced readings or projects, or of problem formulation and research. Under no circumstances is Independent Study substituted for regularly scheduled courses.

Directed Study

HMSV 4975 1-6 cr. 3-18 hr. ▲ ●

Industrial Technology

Electric Systems and Circuits

ITEC 1000 3 cr. 4 hr. ▲

This is an introductory course providing an overview of electrical technology with respect to electric production, transmission, control and use. Basic electrical concepts are covered in a lab setting.

Electronics I

ITEC 1100 3 cr. 4 hr. ▲

This course introduces the principles and techniques used to analyze and design linear circuits with an emphasis on DC circuits. Accompanying laboratory exercises support the material presented in class and introduce experimental techniques.

Prerequisite: ITEC 1000.

Engineering Design: Fabrication Systems I

ITEC 1200 3 cr. 4 hr. ▲

The course studies mass production theory, systems and procedures in metalworking and includes engineering design and leads to prototype development.

Engineering Design: Fabrication Systems II

ITEC 1300 3 cr. 4 hr. ▲

Fundamental woodworking techniques are studied as they relate to construction and manufacturing. Procedures are practiced through selected laboratory experiences. Emphasis is placed on design principles and are applied to prototype development.

Materials Testing

ITEC 1310 3 cr. 4 hr. ▲

This class provides an overview of selected materials and their properties, including laboratory experiences designed to give students an understanding of materials testing.

Construction Systems I

ITEC 1320 3 cr. 4 hr. ▲

The course will provide an overview and lab experience in selected construction standards of the construction industry. Through focused lab experiences, students will develop competencies in using equipment, instruments and techniques essential in the selected areas.

Technical Drawing

ITEC 1400 3 cr. 4 hr. ▲

This course includes lettering, dimensioning, orthographic projection, symbols, sectioning, isometric and auxiliary views. Problem development and blueprint reading is stressed.

Architectural Graphics

ITEC 1450 3 cr. 4 hr. ▲

The course is an introduction to the techniques and understandings involved in the use of drawing as a way of communicating and developing architectural ideas is offered. Drawing is studied as a tool of visualization, exploring and documenting architectural form, organization, the setting of buildings in the land and the quality of light.

Graphic Arts Processes

ITEC 1500 3 cr. 4 hr. ▲

The course studies the production and evaluation of messages utilizing graphic arts processes. This includes graphic design, desktop publishing, camera work, stripping, platemaking and offset press operations.

Typography

ITEC 1510 3 cr. 4 hr. ▲

The origins of the alphabet, evolution of type, traditional typography, nomenclature and classification of typefaces are studied. Emphasis is on planning layout; budget considerations; dimensional coordination, proportion and the grid system; copyfitting, markup and proofreading; composition and computer; and electronic publishing technology.

Energy Systems I

ITEC 1600 3 cr. 4 hr. ▲

The course studies solar and other forms of energy to supply household needs. Students build and test both commercial and laboratory made devices.

Energy Resources and Environment

ITEC 1650 3 cr. 4 hr. ▲

The Energy Resources and Environment course offers in-depth knowledge of energy supplies and sources. The course treats, in detail, topics as how rate of formation is slow than replacement, how energy sources could be best utilized and to identify the technology associated with energy resources. The course will include some field trips.

Evolution of Industrial Technology

ITEC 1700 3 cr. 3 hr. ▲

The course studies the history of industrial technology, and the qualifications, duties and responsibilities of related careers. A field based pre-practicum experience is an integral part of this course. This experience may be in a school or industrial setting. I, CTW

Technical Analysis

ITEC 1710 3 cr. 3 hr. ▲

Applications of mathematics to a variety of technical areas including electronics and mechanics are explored. Topics covered include complex numbers, Lissajou figures, vectors, curve fitting, error analysis and computer methods.

Computers in Industrial Technology

ITEC 1720 3 cr. 4 hr. ▲

This course familiarizes students with computers through presentation of selected hardware and software concepts. Opportunities for extensive hands-on practice with application programs are provided.

Women in Science and Technology

ITEC 2000 3 cr. 4 hr. ▲

We will study the contributions to the advancement of science and technology made by a selected group of women. For each of these women, we will examine her discipline and her contribution to the discipline, and site her in an appropriate historical and cultural setting. I, C, IDIS

Electronics II

ITEC 2100 3 cr. 4 hr. ▲

This course continues to study the principles and techniques of circuit analysis and design with an emphasis on AC circuits. Electronic circuits employing discrete devices are introduced. Accompanying laboratory exercises reinforce concepts and introduce advanced measuring movements.

Prerequisite: ITEC 1100.

Laser Technology

ITEC 2110 3 cr. 4 hr. ▲

This course examines industrial applications of lasers. I covers laser principles and operating characteristics and treats the safety aspects of laser use. Selected applications illustrate the use of lasers in industry. Laboratory experiences reinforce the lecture material.

Prerequisite: ITEC 1100.

Advanced Metal Fabrication Systems

ITEC 2200 3 cr. 4 hr. ▲

Specialized processes in the metalworking industry are studied. Laboratory experiences include performing operations with tool cutter grinders, indexing heads, numerical control millers, turret lathes and tracer lathes.

Prerequisite: ITEC 1200.

Wood Products Manufacturing

ITEC 2300 3 cr. 4 hr. ▲

In this course, emphasis is on the mass production of a product employing the development and use of jigs, fixtures, and other suitable mass production procedures. Appropriate methods of production management are employed.

Prerequisite: ITEC 1300.

Construction Systems II

ITEC 2310 3 cr. 4 hr. ▲

The course studies residential construction with emphasis on green building construction methods, practices and procedures. The materials, equipment and techniques used to construct a structure are examined, and architectural problems related to construction are researched. The course is taken with ITEC2400.

Prerequisites: ITEC 1320.

Architectural Drawing

ITEC 2400 3 cr. 4 hr. ▲

Students design a practical residential structure, conforming to standard practices and building codes. Technical skills are developed enabling students to communicate ideas. Topics discussed and employed include materials of construction, history, and development of various styles, orientation of house on lot, loads and design of structural members. Field trips are taken and available films are used for instruction. The course is taken with ITEC 2310.

Prerequisite: ITEC 1400 or ITEC 1450.

Computer Aided Drafting (CAD)

ITEC 2410 3 cr. 4 hr. ▲

Drafting techniques will be reviewed and applied while completing a series of exercises using computer assistance. An emphasis will be placed on drawings commonly experienced in fields of engineering and architecture. Major projects will allow individuals the opportunity to pursue interest topics. A background of computer experience is helpful, but not necessary.

Prerequisite: ITEC 1400 or ITEC 1450 or ITEC 1720.

Theory of Architecture

ITEC 2450 3 cr. 4 hr. ▲

Architectural situations will be explored that illustrate design theories both traditional and contemporary. Accepted construction techniques will be selected that best fulfill design situations. Emphasized will be the difficulties confronting designers as they resolve problems of conflict.

Prerequisite: ITEC 1320.

Offset Lithography

ITEC 2500 3 cr. 4 hr. ▲

The students study the lithographic form of printing as it is used in modern industry. Computer graphics workstations will be used to produce electronically designed artwork. Laser printers and imagesetters will be used to output the offset film and negatives. The majority of the course is spent setting up and running offset presses. Concepts covered include printing line copy, halftones and controlling ink density.

Prerequisite: ITEC 1500.

Graphic Design

ITEC 2520 3 cr. 3 hr. ▲

Students study the design and production of messages. Students prepare artwork and mechanicals using equipment found in the Industrial Technology Department. The technology of communications is also included.

Prerequisite: ITEC 1500 (credit will NOT be given for both COMM 3810 and ITEC 2520.)

Screen Printing

ITEC 2550 3 cr. 4 hr. ▲

Students work with all forms of screen printing stencils. Torn paper, hand-drawn, hand-cut and photo-direct stencils will be used. Emphasis is on multiple color registration, using both hand and machine printing techniques. Computer graphics artwork may be used by students with computer experience. L

Energy Systems II

ITEC 2600 3 cr. 4 hr. ▲

The course is limited to students who have demonstrated the ability and desire to continue the research and development of a promising solar energy system as initiated in ITEC 1600.

Prerequisite: ITEC 1600.

Power and Lighting Systems

ITEC 2630 3 cr. 4 hr. ▲

The Power and Lighting Systems course offers in-depth knowledge of effective, efficient illumination and retrofitting. The course treats, in detail, many topics such as smart house, temporary service and collect building, lighting system, financial and occupant information and apply that to required light levels per room and address quality issues such as lamp identification, lighting circuits and lighting codes. Students will develop and present plans for specific lighting systems as a part of laboratory work. The course will include field trips to active sites and research facilities.

Prerequisite: ITEC 1000.

Man Technology Society

ITEC 2700 3 cr. 3 hr. ▲

The course studies the universal characteristics of technology, including effects of technology on society and culture. Topics of interest are researched. I, IDIS

Statics

ITEC 2710 3 cr. 3 hr. ▲

The course involves the study of laws of static equilibrium of real bodies. Topics examined are beam and structural analysis, friction, centroids and moments of inertia.

Prerequisite: ITEC 1710.

Automated Manufacturing I

ITEC 2730 3 cr. 4 hr. ▲

Students are introduced to the essential technologies used in automated manufacturing through extensive practice in computer-controlled machining, robotics, and pneumatic and hydraulic control systems.

Prerequisite: ITEC 1720 or equivalent.

OSHA

ITEC 2740 3 cr. 4 hr. ▲

The purpose of this course is to introduce students to the latest occupational safety and health standards and to provide opportunity for the student to perform practical inspections, complete reports and recommend corrective measures to insure safety and healthful conditions. This is a basic OSHA 500 course.

Plastics Technology

ITEC 2750 3 cr. 4 hr. ▲

The course is an investigation of the rapidly expanding area of plastics. Emphasis is on plastics production and its merits and limitations. Tests are conducted to confirm reference data and to promote a better understanding of various plastics and products made from them.

Designing and Planning

ITEC 2900 3 cr. 4 hr. ▲

Elements of product design are experienced through problem solving. Drafting, human engineering and product analysis are incorporated in design and construction of prototypes.

Prerequisites: ITEC 1710 and four of the appropriate freshman level courses.

Electronics III

ITEC 3100 3 cr. 4 hr. ▲

This course further develops the concepts and techniques appropriate to the design and analysis of analog electronic circuits. It provides sufficient background for students who wish to elect upper-level electronics courses.

Prerequisite: ITEC 2100.

Digital Electronics

ITEC 3110 3 cr. 4 hr. ▲

The course is an introduction to the techniques for analyzing and synthesizing digital circuits. Emphasis in design work is on IC technology.

Prerequisite: ITEC 3100.

Control Theory

ITEC 3120 3 cr. 4 hr. ▲

The course is an introduction to control theory utilizing examples of mechanical, fluidic, electronic and hybrid control systems. Emphasis is on design, utilizing the project approach.

Prerequisite: ITEC 3100.

Machine Processes

ITEC 3210 3 cr. 4 hr. ▲

The course covers the design and fabrication of metal products utilizing machine tools, metalworking processes and welding.

Prerequisite: ITEC 2200 or ITEC 3220.

Product Modeling and Rendering

ITEC 3220 3 cr. 4 hr. ▲

This is a laboratory course focusing on the preparation of product renderings and the development of three dimensional models for presentation and analysis of design products, processes or systems. The course will cover the types and uses of renderings and models, techniques and standards in their development; and appropriate material representation.

Prerequisites: ITEC 1400 or ITEC 1450 and ITEC 2410.

Estimating and Bidding

ITEC 3300 3 cr. 4 hr. ▲

The principles of preparing comprehensive unit pricing and systems approach for construction is taught in this course. The emphasis is on detailed estimates in order to determine the scope and cost of each proposed design element.

Prerequisites: ITEC 2400, ITEC 2310.

Mechanical and Plumbing Systems

ITEC 3310 3 cr. 4 hr. ▲

The course surveys the principles of heating, ventilating, air conditioning, purification and control systems. Emphasis is placed on electrical and electronic control and delivery systems, water feed delivery systems and waste water disposal systems.

Prerequisites: ITEC 2310, 2400.

Construction Supervision

ITEC 3320 3 cr. 4 hr. ▲

This course enhances the student's understanding and skills for supervising a construction project. Preparation for the construction supervisors license exam is covered in depth.

Prerequisites: ITEC 3300, 3410.

Wood Technology

ITEC 3330 3 cr. 4 hr. ▲

Students are introduced to a series of industrial techniques through which lumber is used to produce products. Veneering, patternmaking, model building, finishing, laminating and bending are some of the techniques explored.

Prerequisite: ITEC 1300.

Construction Systems III

ITEC 3340 3 cr. 4 hr. ▲

The course is a study of construction techniques and structural elements. Emphasis is placed on heavy construction procedures used in commercial and industrial projects. The course is taken with ITEC 3410.

Prerequisites: ITEC 2310, 2400.

Engineering Drawing

ITEC 3400 3 cr. 4 hr. ▲

In this course students examine orthographic projection, intersections, developments, revolutions, axonometrics, assembly details and pictorial drawings.

Prerequisites: ITEC 1400, 2410.

Drafting Commercial Structures

ITEC 3410 3 cr. 4 hr. ▲

Students will study building systems and develop building designs, construction details, drawings, information schedules and portfolios related to the construction of non-residential properties. The course is taken with ITEC 3340.

Prerequisites: ITEC 2400, 2310.

Architectural Design I

ITEC 3430 3 cr. 4 hr. ▲

Designing space will be emphasized during this studio session. The common problems presented by human activities as they relate to their environment and social context. The visual analysis of existing space will be emphasized. Ergonomics and human behavior will be important areas of consideration.

Prerequisite: ITEC 2410 and ITEC 3410.

Advanced CAD

ITEC 3450 3 cr. 4 hr. ▲

Students study and use advanced Computer Aided Drafting techniques to create two- and three-dimensional surface and solid model drawings applicable to their ITEC concentration area. Selected drawings and a term project are included in a student-developed portfolio.

Prerequisite: ITEC 2410.

Architectural Design II

ITEC 3460 3 cr. 4 hr. ▲

Select problems will be completed through which architectural fundamentals will be explored. Individual and group activities will develop topics of site analysis and improvements, structured forms and applied materials, lighting and color considerations, the applications of scale and proportion and the organization of space. Solutions will be presented in appropriate portfolio form.

Prerequisite: ITEC 3430.

Production Printing

ITEC 3510 3 cr. 4 hr. ▲

This course emphasizes plant layouts scheduling and production of contracted jobs. Four color process printing is emphasized. The course is designed to allow serious students to apply their previous instruction in a controlled, industrial setting. Enrollment is limited to 10 students.

Prerequisite: ITEC 2500.

Printing Estimating and Production Coordination

ITEC 3520 3 cr. 3 hr. ▲

This course provides students with an opportunity to determine how to estimate printed products properly. Relationships between the estimating department, sales, customer service, order writing and production departments are covered.

Prerequisite: ITEC 2500.

Energy Conservation Principles

ITEC 3600 3 cr. 4 hr. ▲

This laboratory course offers in-depth knowledge of energy efficiency, conservation retrofits and choosing appropriate strategies. Cases are discussed regarding the reduction of energy losses and the application of energy conservation techniques for building control systems. Students develop and present plans for specific energy conservation projects that include field trips to sites and research facilities.

Prerequisite: MATH 1300 or permission.

Co-Generation and Waste Recovery

ITEC 3650 3 cr. 4 hr.

The Co-generation and Waste Recovery course will focus on analyzing engineering and co-generation systems to meet industrial process needs and use of reject heat to integrate with the production plant. The course will also cover responsibilities of co-generators and their interconnection cost. Students will run computer programs for metering practices and other metering options.

Prerequisites: ITEC 1600, 2600.

Fluid Power Technology

ITEC 3700 3 cr. 4 hr. ▲

This course introduces the student to applications of fluid power in a variety of industries. Topics covered include properties and behavior of liquids and gases, schematic diagrams for hydraulic and pneumatic circuits, component uses and characteristics, methods of controlling fluid power systems, circuit design and analysis and uses of hydraulic/pneumatic systems in automated manufacturing.

Quality Control

ITEC 3710 3 cr. 4 hr. ▲

The course studies the development and utilization of those statistical methods that enhance quality control within a manufacturing environment. Lab work includes the use of a variety of inspection instruments and small scale testing is done to generate data.

Prerequisite: ITEC 1710.

Automated Manufacturing II

ITEC 3730 3 cr. 4 hr. ▲

This course requires students to successfully integrate the technologies studied in Automated Manufacturing I into working CIM (Computer-Integrated Manufacturing) systems.

Prerequisite: ITEC 2730.

HAZWOPER

ITEC 3740 3 cr. 4 hr. ▲

This is an OSHA-approved hazardous waste operations and emergency response course (OSHA 1910.120). Topics covered include OSHA regulations for this area, exposure risks, material handling practices and equipment, decontamination procedures and the requirements of OSHA 1910.120.

Methods of Teaching Technology Education

ITEC 3800 3 cr. 3 hr. ▲

This course is designed to provide the prospective technology education teacher with a series of related academic, observational and participatory experiences based on the fundamental elements of the teaching-learning process. Students develop, implement and evaluate a variety of short-range instructional methods. A pre-practicum experience in a public technology education program is a requirement of the course to meet state regulations for licensure.

Prerequisite: junior status.

Curriculum Development in Technology Education

ITEC 3810 3 cr. 3 hr. ▲

During this course the student is presented experiences that relate directly to the development of a course of study. Students also have the opportunity to analyze and develop strategies pertaining to curriculum development. A pre-practicum experience in a public technology education program is a requirement of the course to meet state regulations for licensure.

Prerequisite: junior status.

Production Planning and Control

ITEC 3900 3 cr. 3 hr. ▲

Theory and practice in the essentials necessary for the operation of a manufacturing or service facility are the main thrust of this course. Layout of production, line operations, time study requirements and related work problems resulting in an economical and efficient operation are included.

Prerequisites: junior status.

Engineering Experimentation

ITEC 3910 3 cr. 4 hr. ▲

Using a series of open-ended projects, this course prepares the student to work independently in a variety of technical areas. Topics covered include: the creative process, research using technical literature, error analysis for single-sample and multi-sample experiments, types of instrumentation, and technical report writing. This course satisfies the junior-level writing requirement for industrial technology students.

Prerequisite: junior status.

Strength of Materials

ITEC 3930 3 cr. 4 hr. ▲

This course serves as an introduction to the behavior of real materials under the influence of forces and couples. Axial, shear, torsional and flexural stresses and strains are determined.

Prerequisite: ITEC 1710.

Industrial Electronics

ITEC 4100 3 cr. 4 hr. ▲

The course studies the application of electronic principles to devices and equipment, involving thermoelectronics, photoelectronics, solid-state motor control and welding.

Prerequisite: ITEC 3100 and by permission of instructor.

Electronic Communications Systems

ITEC 4110 3 cr. 4 hr. ▲

The system and circuits utilized in electronic communications are studied, including both transmitters and receivers. Methods of modulation are discussed and television is utilized as a representative system.

Prerequisite: ITEC 3100 and by permission of instructor.

Microprocessor-Based Control Systems

ITEC 4120 3 cr. 4 hr. ▲

This course covers both hardware and software. The hardware portion includes a necessary introduction to the microprocessor itself and emphasizes interfacing the use of microprocessors to affect control. The software portion provides a necessary skill level in machine language programming.

Prerequisite: ITEC 3100.

Seminar in Construction

ITEC 4310 3 cr. 4 hr. ▲

This course is open to students specializing in construction. The course deals with current trends and issues facing the construction industry at local, state and federal levels. The emphasis is on utilizing available resources to solve current problems.

Prerequisites: ITEC 3300, 3320.

Site Planning

ITEC 4350 3 cr. 4 hr. ▲

The scope of this study will entail the problems presented to a designer by an unimproved land site. Proper design concepts will be applied as techniques and materials are selected. Solutions will be presented in the form of drawings and estimated costs. Legalities relating to construction codes and zoning will be emphasized.

Prerequisite: junior status.

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Descriptive Geometry
*ITEC 4400 3 cr. 3 hr. ▲

Descriptive Geometry is concerned with graphical representation and the problem solving using spatial relationship of points, lines and planes by means of projections.

Prerequisite: ITEC 3400.

Architectural Professional Practice
ITEC 4470 3 cr. 4 hr. ▲

A study will be made of the various office forms, procedures and protocol through which the practice of architecture is organized. Topics will include the personal ethical and legal interrelationships between other professionals, property owners and the skilled trades. Legal forms and procedures common to the profession will be introduced.

Prerequisite: senior status.

Process Color Separation
ITEC 4500 3 cr. 4 hr. ▲

In this course students experience scanning color photographs directly into electronic publishing systems. Using the electronic publishing hardware and software, the images are manipulated and merged to create completed printing negatives. The electronic files and negatives are proofed using a variety of color printers and color keys.

Prerequisite: ITEC 2500.

Seminar in Graphic Arts
ITEC 4520 3 cr. 3 hr. ▲

In the seminar students study and discuss current trends, issues, problems and technical material in graphic arts. Emphasis is placed on comprehending why the trends must take place and how the emerging technology allows the trends to happen. Students are able to project future technical trends within the graphic area.

Prerequisite: ITEC 2500.

Performance Contracting
ITEC 4600 3 cr. 4 hr. ▲

The course is designed to provide students the guidance to use the performance contracting energy financing/service mechanism effectively and provide an excellent mechanism to bring economy, energy and the environment into appropriate perspective. The first half of the course builds an understanding of the options available and then walks through each step to effectively secure performance contracting services. The second half applies the material from the first half to different market segments, such as the federal government and utilities from the end-user's point of view. Students will present and discuss their reports in class.

Prerequisites: ITEC 1600, 2600, 3600.

Project Management
ITEC 4700 3 cr. 4 hr. ▲

The objective of this course is to present and discuss the management of different projects. The projects usually involve a great deal of time and expense. So close management control is required if they are to be completed within the established time and cost limitations. The course also develops and discusses management techniques towards the control of cost, time and project finance during the project process.

Seminar in Facilities Management
ITEC 4750 3 cr. 4 hr. ▲

Seminar in Facilities Management offers in-depth knowledge of current topics and sources. The course treats, in detail, many topics such as planning and performance criteria, design, procurement and construction. At times, it can be advantageous for an owner to negotiate a contract for its project with a preselected contractor. This course will cover the different negotiating contracts and will include some field trips.

Pre-practicum and Seminar
ITEC 4840 3 cr. 3 hr. ▲

The seminar gives students the opportunity to formulate concepts of technology education and develop a working knowledge of principles and practices of technology education administration. Pre-practicum experiences are also included. The course meets the state requirement for certification.

Prerequisites: ITEC 3800, 3810.

Practicum 1 in Technology Education
ITEC 4862 6 cr. 18 hr.

This course is the middle (junior high) school component of the student teaching experience for all technology education teacher candidates. The teacher candidate will be afforded the opportunity to experience all aspects of the middle (junior high) school instructional environment. The teacher candidate works collaboratively with a master teacher, administrators, supports staff, and parents in the successful completion of this educational activity.

Prerequisites: ITEC 3800, 3810.

Practicum 2 in Technology Education
ITEC 4864 6 cr. 18 hr. ▲

This course is the senior high school component of the student teaching experience for all technology education teacher candidates. The teacher candidate will be afforded the opportunity to experience all aspects of the senior high school instructional environment. The teacher candidate works collaboratively with a master teacher, administrators, supports staff, and parents in the successful completion of this educational activity.

Prerequisites: ITEC 3800, 3810.

Internship in Industrial Technology
ITEC 4960 12 cr. 36 hr. ▲

In the Internship students participate in an industrial experience with the approval of the Industrial Technology faculty.

Independent Study
ITEC 4900 3 cr. ▲

The Independent Study allows students to enroll in a directed study.

Directed Study
ITEC 4975 1-6 cr. ▲

Interdisciplinary Courses

A large number of courses have been identified as interdisciplinary. Some of these have an IDIS prefix. Other courses are often described in the discipline most closely associated with the interdisciplinary course. This section gives complete course descriptions for the interdisciplinary course or refers to specific areas for descriptions if they are located in other sections.

History of Architecture
ART 1300 3 cr. 3 hr. ▲

See ART 1300.

Art Criticism
ART 3100 3 cr. 3 hr. ▲

See ART 3100.

Literature and Disability
ENGL 2300 3 cr. 3 hr. ▲ ●

See ENGL 2300.

Literature and Film
ENGL 2330 3 cr. 3 hr. ▲ ●

See ENGL 2330.

French Civilization
FREN 3000 3 cr. 3 hr. ▲

See GEOG 1000.

Introduction to Geography
GEOG 1000 3 cr. 3 hr. ▲

See GEOG 1000.

Economic Geography
GEOG 3000 3 cr. 3 hr. ▲

See GEOG 3000.

History of Mexico, Central America, and the Caribbean
HIST 2700 3 cr. 3 hr. ▲

See HIST 2700.

History of South America
HIST 2750 3 cr. 3 hr. ▲

See HIST 2750.

Introduction to Women's Studies

IDIS 1000 3 cr. 3 hr. ▲ ●

The course is a cross-cultural, historical and interdisciplinary introduction to topics and themes in women's experiences, including roles in the family, the work force and public life. CTW

Introduction to International Studies

IDIS 1200 3 cr. 3 hr. ▲

The purpose of this survey course is to acquaint students with the field of international studies in the context of contemporary global change. Through lectures, films, performances and readings, the student gains perspective on some very rapid and important international political-economic transformations and cultural changes. CTW, GDCN

Creative Arts

IDIS 1300 3 cr. 3 hr. ●

Participants acquire basic skills in music, movement, visual art and language with which they create personal and group works. A final project demonstrating these skills as well as attendance, outside readings and final exam are required.

Global Issues

IDIS 1800 3 cr. 3 hr. ▲ ●

This course examines the interdependency of the world's nations by focusing on current events in the international area and issues such as ozone depletion, pollution, the global economy, conflict and cooperation, population and hunger. CTW, GDCN

Introduction to Peace Studies

IDIS 1900 3 cr. 3 hr.

In this introduction to the field of Peace Studies, through an interdisciplinary approach, the students will explore conflict—its origins, management, ramifications and attempts to move beyond it. Conflict will be explored on the individual, group, national and international levels.

Women in Science and Technology

IDIS 2000 3 cr. 4 hr. ▲

We will study the contributions to the advancement of science and technology made by a selected group of women. For each of these women, we will examine her discipline, and her contribution to the discipline, and site her in an appropriate historical and cultural setting.

Dilemmas of Peace and War

IDIS 2100 3 cr. 3 hr. ▲ ●

This introductory-level course is an interdisciplinary study of the issues of peace and war. It interweaves history, political science, philosophy, literature and psychology through readings, discussions, lectures, media and class presentations.

Stress, Illness and Coping

IDIS 2200 3 cr. 3 hr. ▲ ●

This course focuses on the relationship between stress and illness, and on therapeutic interventions to decrease stress to promote health, to cope with chronic illness, and in some cases to reduce the risk of stress-induced diseases. Particular attention is given to holistic interventions supported by current research. Social, economic, political and cultural factors are critically examined to facilitate understanding of access to complementary and alternative health care interventions from various philosophical perspectives across the globe.

Issues in Women's Health

IDIS 2340 3 cr. 3 hr. ▲

This course offers a multicultural and interdisciplinary examination of women's health issues and problems, including socialization, self-esteem, sexuality, birth control, substance abuse and violence.

Note: If minoring in Women's Studies see advisor for course sequence.

Caribbean Cultures

IDIS 2400 3 cr. 3 hr. ▲

This course introduces the culture, politics, economy and natural history of the Caribbean, and the relation of these facets to the culture of our students.

Culture and Society of India

IDIS 2500 3 cr. 3 hr. ▲

This course explores developments in India's cultural heritage, historical epochs, religious traditions and socio-political movements from antiquity to the present. Class work involves numerous readings of articles on select topics and writing.

Prerequisite: Writing II.

Global Issues in Film

IDIS 2540 3 cr. 3 hr. ▲

This course introduces students to crucial global issues of our time, many of which principally concern developing, non-Western nations, but all of which will impact the future of the U.S. Through film viewings, readings, writing, and discussion, students will engage with global problems and learn to develop their own critical viewpoints on complex issues. Students will analyze both documentaries and narrative films as artistic treatments of human problems. Their final project will require an in-depth study of, and presentation on, media representations of global issues pertaining to one nation. CTW, GDCN Please Note: This course will be cross-listed as an English course and as a Political Science course. In addition, for those majors that require their students to take Global Issues, this course could substitute for that course.

Art and Culture Abroad

IDIS 2550 3 cr. 3 hr. ▲ ●

This course is designed for our International Education's Study Abroad programs. The topics covered in this course will vary according to the location of the program and specialty of the professors but will include many areas of interdisciplinary interest while enlightening the students as to the history, art and culture of the country they are visiting. Primary subjects may include art history, music, architecture and/or history; related and interdisciplinary subjects may include literature, film, religion, philosophy and/or food history. Each version of the course will concentrate on the local and national culture of the locale of the program. Possible locations include Verona, China, Barcelona, France, and Quebec. May be taken more than once for credit with departmental approval.

Man, Society, and Technology

IDIS 2700 3 cr. 3 hr. ▲

The course studies universal characteristics of technology, including effects of technology on society and culture. Topics of interest are researched.

Seminar in the Humanities

IDIS 4000 3 cr. 3 hr. ▲

This course is a capstone experience for students in Interdisciplinary Studies Humanities. Students review research findings and integrate selected humanities areas. This research culminates into a final research paper and classroom presentation.

IDIS Capstone Seminar: Education

IDIS 4000 3 cr. 3 hr. ▲

While the capstone seminar is required for all IDIS majors, the candidates who have a dual major in Interdisciplinary Studies and Early Childhood, Elementary, Middle School and Special Education, have a capstone seminar designed to combine their majors. Candidates identify a topic theme in a content area that is connected with the Massachusetts Curriculum frameworks and then review the literature on the topics of one of their three areas in interdisciplinary studies. A thematic unit which may be implemented in the classroom and uses technology and an oral presentation is the key project. Metacognitive activities will be used to assist the university student in reflecting about their teaching and to identify areas for further development.

IDIS (General Studies Capstone)

IDIS 4803, 4805, 4806, 4809, 4812, 4815 3-12 cr.

This is the culminating course for the IDIS major. It can be an internship, a special project or an independent research program. The course is proposed by the student on a special form provided by the coordinator of interdisciplinary studies and approved by the advising committee. The content of this course should demonstrate the integration of the student's fields of study. Contact the coordinator of Interdisciplinary Studies for further instruction.

Adaptations
EXSS 3050 **3 cr. 3 hr.** ▲
(See EXSS 3050)

Commonwealth of the Arts
MUSC 2000 **3 cr. 3 hr.** ▲ ●
(See MUSC 2000) ART

Commonwealth of the Ancient Arts
MUSC 2100 **3 cr. 3 hr.** ▲ ●
(See MUSC 2100) ART

Logic
PHIL 1100 **3 cr. 3 hr.** ▲ ●
(See PHIL 1100) Q, L. IDIS, SMT

Philosophy of Human Nature
PHIL 2600 **3 cr. 3 hr.** ▲ ●
(See PHIL 2600) I, B, IDIS, CTW, GDC

Contemporary Philosophy
PHIL 3340 **3 cr. 3 hr.** ▲
(See PHIL 3340) I, IDIS

Marxism
PHIL 4430 **3 cr. 3 hr.** ▲
(See PHIL 4430) I, IDIS

Dostoevsky and Tolstoy (in English)
RUSS 2400 **3 cr. 3 hr.** ▲
(See RUSS 2400) L, I, C, IDIS

Biological Psychology
PSY 3420 **3 cr. 3 hr.** ▲
(See PSY 3420) B, Q, IDIS

Russian Literature in English Translation
RUSS 2500 **3 cr. 3 hr.** ▲
(See RUSS 2500) L, I, C, IDIS

Russian Culture and Soviet Life (in English)
RUSS 2600 **3 cr. 3 hr.** ▲
(See RUSS 2600) L, I, C, IDIS

Race and Ethnic Relations
SOC 2500 **3 cr. 3 hr.** ▲ ●
(See RUSS 2500) B, I, C, IDIS

Social Stratification
SOC 3000 **3 cr. 3 hr.** ▲ ●
(See SOC 3000) B, I, C, IDIS

Women in American Society
SOC 3770 **3 cr. 3 hr.** ▲
(See SOC 3770) B, C, IDIS

Independent Study
IDIS 4900 **3 cr.** ▲

Directed Study
IDIS 4975 **1-6 cr.** ▲

Italian

Italian for Beginners I
ITAL 1000 **3 cr. 3 hr.** ▲ ●
The correct pronunciation, reading ability and fundamentals of grammar and syntax of the Italian language are studied. Students are taught the four language skills of listening, speaking, reading and writing. Cultural topics are integrated with these skills. Italian gradually becomes the working classroom language. Students with a year or more of high school Italian should register for Italian 2000.
L, C, CTW, GDC

Italian for Beginners II
ITAL 1100 **3 cr. 3 hr.** ▲
The course is a continuation of ITAL 1000 or is taken with permission of the instructor. L, C, CTW, GDC

Intermediate Italian I
ITAL 2000 **3 cr. 3 hr.** ▲
The course focuses on a discussion of advanced grammar points and readings dealing with Italian life. Emphasis is on developing conversational fluency. L, C
Prerequisite: ITAL 1100 permission of Instructor.

Intermediate Italian II
ITAL 2100 **3 cr. 3 hr.** ▲
The course is a continuation of ITAL 2000 or is taken by permission of the instructor. L, C

Italy Through Film
ITAL 2500 **3 cr. 3 hr.** ▲ ●
This course will explore Italian history, society and culture through works of Italian cinema from 1940s to the present day. Trends in cinematic style and genre as well as the contributions of noted directors such as Visconti, Pasolini, Antonioni and Fellini will be discussed, but primarily as expressive of socio-economic, historical, political, and artistic realities. Focus of class discussion and readings will be topics such as "The Myth of Italy", "North-South Divide", "The Changing Family", "Roles of Women and Men", "The Era of Fascism", "Immigration and Emigration", "Mafia", "Terrorism". Students will create their own blogs, participate in class discussions, give presentations, and develop a proposal for an original Italian film series. CTW, GDC

Italian Culture (in English) I—From Antiquity to 1800
ITAL 3000 **3 cr. 3 hr.** ▲ ●
In this introduction to Italian culture, from Roman times to 1800, students will read literary texts such as those by Dante, poet of the Inferno; the brazen storyteller Boccaccio; the political scientist Machiavelli; and the brilliant playwright Goldoni in their historical context. We will also treat architecture (Roman, Medieval, Renaissance), art (Giotto, Masaccio, Leonardo da Vinci, Michelangelo and Caravaggio, etc.), and music (madrigals, early opera, baroque). Students will come to comprehend the beauty and complexity of Italian culture, as well as reflect upon the way it has shaped their own experience. There are no prerequisites for this course.
L, C, IDIS, CTW, GDC

Italian Culture (in English) II—From 1800 to the Present
ITAL 3100 **3 cr. 3 hr.** ▲ ●
A continuation of ITAL 3000, the dynamic expressions of Italian culture from 1800 to the present day will be presented. Works by the sublime poet Leopardi, the modern playwright Pirandello and the playful storyteller Calvino will be explored in their historical context, alongside contemporary currents in art, music and film. A four-week segment of the course will be devoted entirely to film, focusing on cinematic portrayals of Italy during World War II and the post-war period. There are no prerequisites for this course, which may be taken before or after ITAL 3000. CTW, GDC

Women in Italy
ITAL 3300 **3 cr. 3 hrs.**
This seminar-style course (in English) focuses on the experiences of Italian Women through the centuries. Course material will include letters, memoirs, non-fiction, poetry, theatre, short stories and novels of Italian Women, linking them to key social, political and historical developments. Students will also be introduced to women's voices in Italian cinema and music. L, C, IDIS, CTW, GDC

Italian Conversation and Composition
ITAL 3500 **3 cr. 3 hr.** ▲
The main focus of this course is to offer a substantial selection of authentic cultural material in Italian, as a stimulus for students' intensive practice in writing and conversation in Italian. Students will come in contact will a variety of sources (newspapers, literature of various genre, advertising, songs and full-length films), becoming familiar with diverse linguistic registers and social appropriateness. L

Independent Study in Italian
ITAL 4901-4903 **1-3 cr. 3 hr.** ▲
The Independent Study is open to students in the language with the permission of the supervising instructor and the department chair. Meeting times and credit are arranged upon request.

Leadership Academy Honors Program

Foundations of Leadership I

LEAD 1005 3 cr. 3 hr. ▲

This course focuses on what it means to be leaders in today's world. Students will study different theories of leadership as they apply to leaders, followers and situations and will have opportunities to observe and apply these theories in real-life situations. Students will also be introduced to some basic psychological research methods and will use these methods to complete several small leadership projects. B, CTW

Current Events and Service Learning

LEAD 1020 3 cr. 3 hr. ▲

Leadership Academy students will be introduced to key selected current issues and use these as a platform for service learning. The course combines analysis of political and social issues with practice in the form of service learning oriented toward these issues. CTW

Honors English I

LEAD 1050 3 cr. 3 hr. ▲

This course encourages the development of each student's writing, independent reading and research abilities. Concepts and expressions of leadership in the classical and romantic traditions in literature and the fine arts will be emphasized. Fictional and non-fictional literature will be examined from various class, cultural, gender, historical, literary and political perspectives. ART

Leaders in the Humanities: Mozart to Modernism

LEAD 1070 3 cr. 3 hr. ▲

Students will be introduced to the arts, the study of exemplary artists and composers, writers and/or philosophers from the eighteenth century through the modernist era of the twentieth century. Students will gain an understanding of major movements from the late eighteenth through the early twentieth century and the relationship of these different disciplines to each other in each period. Topics will include Neoclassicism/Classicism, Romanticism, Realism, Impressionism and Post-Impressionism. ART, GDA

Leadership in the Outdoors

LEAD 1140 1 cr. 1 hr. ▲
(EXSS 1140)

Leadership in the Outdoors is a course designed for students in the Leadership Academy. Experiential by design, the course provides students an opportunity to experience and practice a variety of leadership styles through participation in outdoor adventure activities such as: a confidence course, initiative games, orienteering, canoeing and mountain hiking. The inquiry and analysis for the different types of leadership styles will be conducted for both the individual student and the entire class. An overnight camping trip will culminate the Leadership in the Outdoors course.

Honors English II

LEAD 1200 3 cr. 3 hr. ▲

This course is a continuation of Honors English I and emphasizes writing, independent reading and research. Students examine varieties of leadership in the personal narratives of cultural, intellectual and political leaders, and in the analyses of social critics and theorists and in works of fiction. We will examine works from various class, cultural, gender, historical, literary and political perspectives. The diversity of texts affords students opportunities to develop strategies for the interpretation and analysis of different kinds of source material and to evaluate the concept of leadership in many contexts. ART

Leadership in Biological Issues and Inquiry

LEAD 1600 4 cr. 6 hr. ▲

This course will address current issues such as population growth, environmental concerns, genetic testing, the human genome mapping project, and the spread and control of disease. Each of these topics requires a clear understanding of the scientific research, mathematical principles and technological advances behind these biological questions. A case study approach and investigative activities that use laboratory experiments and computer simulations in concert with more traditional presentations will provide the focus for addressing these topics. These investigations will illustrate biological concepts while engaging the students in problem solving, planning, decision making and group discussions. SMT, Q

Consumer Health

LEAD 2030 1 cr. 2 hr. ▲

This course is designed to help the student evaluate health information critically, and select products and services wisely. The past, present, and future for quackery is explored especially in the areas of food, cosmetics and chronic disorders. Laws and protection agencies, both governmental and private, are surveyed.

Honors Seminar Literature

LEAD 2100 3 cr. 3 hr. ▲

Leadership Academy students will be introduced to the study and analysis of literature through a topic to be selected by their instructor. Students will be developing an understanding of the historical background and the popular culture at the time when the book was written. ART

Honors Seminar Contemporary Issues in the Humanities

LEAD 2150 3 cr. 3 hr. ▲

Students will have an opportunity to reflect on the positive and negative aspects of the arts in our society today and the impact of the arts in their lives. Topics may vary depending on the instructor and/or students enrolled. The instructor will provide a list of possible topics and additional topics will be generated by students throughout the course of the semester depending on current events and interests. ART, GDA

Honors Seminar History

LEAD/HIST 2225 3 cr. 3 hr. ▲

Leadership Academy students will be introduced to key historical issues and methods. Students will engage in intensive study of a historical topic or theme to be selected by the instructor. CTW

Honors Seminar Geo/Physical Sciences

LEAD/GEOG 2250 3 cr. 3 hr. ▲

This course will introduce students to the study of the natural world through a focus on a major topic in Geo/Physical Sciences. SMT

Prerequisites: Students should have completed one math course at the college level.

Independent Study in Leadership

LEAD 4900 6 cr. 6 hr. ▲ ●

The Independent Study is open to students in the Leadership Academy or Leadership Studies minor with the permission of the supervising instructor and the coordinator of the Leadership Academy. Meeting times and credit are arranged upon approval.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students I, B, L, C, IDS

Senior Thesis/Project/Research

LEAD 4990 3 cr. 3 hr. ▲

The course is for Leadership Academy students completing the senior requirement. Topics are approved by the thesis committee, coordinator, and advising professor. The course of study, meetings and credit are arranged with the advisor.

Senior Thesis/Project/Writing

LEAD 4991 3 cr. 3 hr. ▲

Mathematics

In order to register for Math courses at the 1000 level or above, students must have met the development requirements on p. 61.

Basic Mathematics I

MATH 0100 3 inst. cr. 3 hr. ▲ ●

This class serves as a review of basic arithmetic skills and an introduction to elementary algebra.

Basic Mathematics II

MATH 0200 3 inst. cr. 3 hr. ▲ ●

The course serves as a continuation of Basic Mathematics I. Concepts studied range from elementary algebra through quadratic equations.
Note 1: Institutional Credits do not count toward graduation.
Note 2: All students must pass the Math Placement Exam or MATH 0200 before they are permitted to take any of the following mathematics courses.

Finite Mathematics

MATH 1200 3 cr. 3 hr. ▲

In this course a variety of discrete mathematical models are developed and applied to business and to the social and life sciences. Topics covered are chosen from matrices, linear programming, probability, financial models and game theory. SMT

Introduction to Functions

MATH 1250 3 cr. 3 hr. ▲ ●

This course provides a study of mathematical functions, graphing techniques, and applications. The functions covered in the class are linear, quadratic, polynomial, rational, exponential and logarithmic. Credit is awarded for only one of MATH 1250, MATH 1300, or MATH 1600. SMT

Precalculus

MATH 1300 3 cr. 3 hr. ▲ ●

This course prepares students for the study of calculus. Topics covered include real numbers, equations and inequalities and analytic geometry, as well as polynomial, rational, trigonometric, exponential and logarithmic functions. Credit is awarded for only one of MATH 1250, MATH 1300, or MATH 1600. SMT

Mathematics Across the Curriculum

MATH 1400 3 cr. 3 hr. ▲

This course introduces students to a variety of topics in applied mathematics chosen from population modeling, financial modeling, measurement, growth and form, linear programming, social decision making, and graph theory. The course is required for Elementary Education majors and Middle School Education majors.

Informal Number Theory

MATH 1500 3 cr. 3 hr.

Informal Number Theory focuses on the group properties of the real number system as the foundations for computational algorithms in arithmetic, the basic conceptual underpinnings of algebra, and problem solving methods using either arithmetic or algebra. The importance of place value in number systems, divisibility properties, and connections between numbers and geometry, and problem solving in various contexts will be stressed. This course is restricted to education majors. SMT

Pre-requisite: Mathematics Readiness Requirement.

Informal Mathematical Modeling

MATH 1600 3 cr. 3 hr. ▲

This course will cover relations, patterns and functions using multiple representations and focusing on the manner in which these concepts connect to mathematical ideas specified in the Massachusetts Mathematics Curriculum Frameworks. Linear and quadratic functions will be covered in depth and the students will be exposed to basic exponential, polynomial and rational functions. Applications will be included throughout the course. Topics chosen from the following will be included as time permits: transformations of functions, logarithmic, root and absolute value functions. For education majors only. Credit is awarded for only one of MATH 1250, MATH 1300, or MATH 1600. SMT

Prerequisites: MATH 1500 or equivalent.

Applied Statistics

MATH 1700 3 cr. 3 hr. ▲ ●

Methods of data collection, organization and interpretation, sampling, probability, estimation, and testing are applied to areas including biology, business, medicine, economics and education. Credit is not awarded for both MATH 1700 and MATH 1800. Q, SMT

Business Statistics

MATH 1800 3 cr. 3 hr. ▲ ●

Topics covered in this course include descriptive methods, probability distributions, estimation, testing, analysis of variance and regression analysis. (Credit is not awarded for both MATH 1700 and MATH 1800.) SMT

Prerequisite: MATH 1250 or MATH 1300.

Freshman Seminar in Applied Mathematics

MATH 1850 1 cr. 1 hr. ▲

This course will consist of a series of talks given by members of the Applied Mathematics community (either in academia or industry) demonstrating an application of applied mathematics with preparatory and follow-up work. The goal of the course is to present students with real-world applications of mathematics and pique their interests. It will introduce students to possible areas of study and the mathematics used in the talks. They are also introduced to background mathematics that will be used in the talks, which will give them motivation for a thorough grounding in mathematics.

Prerequisites: MATH 1300, 2300 (co-requisite)

Discrete Mathematics

MATH 1900 3 cr. 3 hr. ▲ ●

This course introduces discrete mathematics as applied to computer science. Topics covered include Boolean logic, elementary set theory, functions, relations, enumeration, proof techniques, number systems and trees. SMT

(Credit is not given for both CSC 1900 and MATH 1900.)
Prerequisite: Math 1250 or Math 1300 or permission of department.

Informal Geometry

MATH 2000 3 cr. 3 hr. ▲

This course involves an intuitive study of basic geometry and its concepts. Topics include: symmetry, symmetry groups, properties of polyhedral, properties of circles and polygons, measurement and scaling. This course is particularly appropriate for future K-8 teachers. SMT

Prerequisite: ENGL 1200

Technical Calculus*

MATH 2100 3 cr. 3 hr.

Technical Calculus covers topics, such as limit and continuity, which support the concept of a derivative or an instantaneous rate of change. After the study of Isaac Newton's derivative, the limit definition of the derivative, and techniques of differentiation, Technical Calculus introduces applications of derivatives with special attention to building, planning and architecture. Credit is awarded for only one of MATH 2100, MATH 2200, or MATH 2300. SMT

Pre-requisite: MATH 1300 or equivalent.

Calculus for Business*

MATH 2200 3 cr. 3 hr. ▲ ●

This course surveys methods and applications of the calculus for functions of one variable, which are useful in business and economics. Topics include differentiation with applications to rates and maximum and minimum values, integration techniques with applications to areas, cost and rates. Credit is awarded for only one of MATH 2100, MATH 2200, or MATH 2300. SMT

Prerequisite: MATH 1250 or MATH 1300.

Calculus I*

MATH 2300 4 cr. 5 hr. ▲ ●

The derivative of a function, methods of differentiation and applications are studied. This course includes a computer laboratory component using computer algebra software. Credit is awarded for only one of MATH 2100, MATH 2200, or MATH 2300. SMT

Prerequisite: MATH 1300 or its equivalent

A student can only receive graduation credit for MATH 2100 or MATH 2200 or MATH 2300.

Calculus II

MATH 2400 4 cr. 5 hr. ▲ ●

The course involves the study of the Riemann integral, methods of integration, and applications. This course includes a computer laboratory component using computer algebra software. SMT

Prerequisite: MATH 2300 or its equivalent.

Introduction to Mathematical Thought

MATH 2500 3 cr. 3 hr. ▲

The course is intended to introduce mathematics as the science of reasoning. Topics covered include elementary set theory, logic, mathematical induction, axiomatic systems and techniques of proof with applications in areas such as equivalence relations, modular arithmetic, function properties and graph theory. SMT

Prerequisite: MATH 1300 or its equivalent.

Linear Algebra

MATH 2600 3 cr. 3 hr. ▲ ●

In this course topics covered include the application of vector spaces, linear transformations and matrices. SMT

Prerequisite: MATH 2300.

Applied Statistics II

***MATH 2700 3 cr. 3 hr. ▲ ●**

This course is a continuation of MATH 1700. Topics covered include estimation and testing, simple linear and multiple regression, analysis of variance and nonparametric methods.

Prerequisite: MATH 1700 or MATH 1800.

Introduction to Secondary School Teaching

MATH 2860 3 cr. 3 hr. ▲

This course is required of all students preparing for initial license at the secondary level. It is a sophomore level course for full-time undergraduates and the first course taken by transfer students. It is taught at the local high school and is a clinical laboratory experience. This course includes a 25 hour prepracticum requirement and is a prerequisite for other certification course requirements. Students become familiar with the complexities of secondary school teaching and its demands. The course gives faculty the opportunity to screen students and give students the opportunity to test their commitment to teaching.

Prerequisite: 2.5 GPA or permission of instructor.

Geometry

MATH 3000 3 cr. 3 hr. ▲

The course involves a formal study of basic concepts in geometry and the foundations of Euclidean and non-Euclidean geometry. This course is for mathematics majors or minors and students with a mathematics specialization—all others need permission from the instructor.

Prerequisites: MATH 2400, 2600.

Discrete Algebraic Structures

MATH 3100 3 cr. 3 hr. ▲

The course introduces discrete algebraic structures of interest in computer science. Topics covered are chosen from partial orders, Boolean algebra, graph theory and finite state machines.

Prerequisite: MATH 2600.

Elementary Number Theory

MATH 3150 3 cr. 3 hr. ▲

This course involves the study of the properties of the integers. Topics covered include divisibility, prime numbers, congruences, Diophantine equations, cryptography, mathematical induction and computational number theory.

Prerequisite: MATH 2500.

History of Mathematics

MATH 3200 3 cr. 3 hr. ▲

The development of mathematical ideas and methods from ancient to modern times and their relevance to other fields of knowledge is studied. This course is intended for mathematics majors, mathematics minors or mathematics specialists.

Prerequisite: MATH 2400.

Calculus III

MATH 3300 3 cr. 3 hr. ▲ ●

Course topics include conic sections, indeterminate forms, Taylor polynomials, infinite series (numerical and power), polar coordinates, and parametric curves.

Prerequisite: MATH 2400.

Calculus IV

MATH 3400 3 cr. 3 hr. ▲ ●

The calculus of vector-valued functions, differentials, multiple integrals, quadric surfaces, and directional derivatives are studied. Optional topics include: double integrals in polar coordinates, line integrals, and differential equations.

Prerequisite: MATH 3300 or MATH 2400 and MATH 2600.

Methods of Applied Mathematics

MATH 3500 3 cr.3 hr. ▲

One of the core courses for students in the Applied Mathematics concentration of the Mathematics Department. Students in this course will learn the basic techniques necessary for performing research in an application of Mathematics to another field of study. Students will also learn to use a Computer Algebra System for analysis and visualization. Upon completion of this course, students should have a firm foundation for pursuing further study in Applied Mathematics, as well as have a good appreciation for the use of Computer Algebra Systems to aid the analysis and visualization of mathematical problems.

Prerequisites: MATH 2300 and 2600.

Ordinary Differential Equations

MATH 3550 3 cr. 3 hr. ▲

Students examine linear first and second order differential equations, methods of solution and applications. Series solutions and higher order linear equations are considered.

Prerequisites: MATH 2600 and 3300.

Introduction to Mathematical Logic

***MATH 3600 3 cr. 3 hr. ▲**

This course serves as an elementary introduction to classical and symbolic logic, including standard sentential and first order predicate calculi.

Prerequisite: MATH 2500 or MATH 2300.

Mathematics Seminar

MATH 3900 1 cr. 1.5 hr. ▲

The Seminar provides the opportunity for problem solving and research on one or more topics outside the core curriculum areas. It may be repeated once.

Prerequisite: MATH 2500 and 3300

Real Variable Theory

***MATH 4000 3 cr. 3 hr. ▲**

The course covers rigorous treatment of the foundations of differential and integral calculus with such topics as the real numbers, continuity, metric and Euclidean spaces.

Prerequisites: MATH 2600 and 3300.

Topology

***MATH 4050 3 cr. 3 hr. ▲**

Topics covered include point sets, metric spaces, topological spaces, connectedness and compactness.

Advanced Multivariate Calculus
MATH 4150 3 cr. 3 hr. ▲

The differential and integral calculus of vector valued functions and functions of several variables are examined.

Prerequisites: MATH 2600, 3400.

Probability and Statistics I
MATH 4200 3 cr. 3 hr. ▲

The course involves a careful development of elementary probability theory with applications followed by the study of discrete and continuous random variables, including the binomial, Poisson and normal.

Prerequisite: MATH 3300.

Probability and Statistics II
MATH 4250 3 cr. 3 hr. ▲

Random variables and their probability distributions are used to study problems in estimation, hypothesis testing, regression and analysis of variance.

Prerequisite: MATH 4200.

Abstract Algebra
MATH 4300 3 cr. 3 hr. ▲

The course introduces algebraic structures, including groups, rings and fields.

Prerequisites: MATH 2500 or permission of Instructor, and MATH 2600.

Complex Analysis
MATH 4350 3 cr. 3 hr. ▲

The course covers the following topics: the complex number system, the analysis of complex functions, analytic functions, integration, series, contour integration and conformal mappings.

Prerequisite: MATH 3300.

Operations Research
MATH 4400 3 cr. 3 hr. ▲

The course covers the following topics: linear programming, duality, networks, transportation problems, dynamic programming and stochastic models.

Prerequisites: MATH 2600 and 2400.

Mathematical Modeling
MATH 4450 3 cr. 3 hr. ▲

Deterministic and probabilistic models from the physical, social and life sciences are studied. The course emphasizes the uses of mathematics, rather than the acquisition of new mathematical knowledge. New mathematical ideas are introduced only when they aid in the study of a particular application. Q

Prerequisites: MATH 2400, 2600.

Senior Seminar in Applied Mathematics
MATH 4600 3 cr. 3 hr. ▲

This course is designed for seniors in applied mathematics to complete the student's senior project. They will meet regularly with the instructor to provide consultation with their project and work in conjunction with other students as needed. Since the topic for each student's project will be selected by the student, the topics of the course will vary depending on the enrolled students. Each student will do a survey of the literature, define a problem statement, and develop a strategy for completion of the topic.

Prerequisite: MATH 4450.

Numerical Analysis
MATH 4500 3 cr. 3 hr. ▲

Numerical analysis is concerned with devising algorithms for approximating the solutions to mathematically expressed problems. Topics are chosen from round off error and computer arithmetic, solutions of algebraic and transcendental equations, interpolation and polynomial approximation, numerical differentiation and integration, solutions of ordinary differential equations, solutions of linear systems, and approximation theory. Both mathematical rigor and computer solutions are stressed.

Prerequisites: MATH 2600, 3300, programming ability in a numerical program language.

Senior Seminar in Applied Mathematics
MATH 4600 3 cr. 3 hr. ▲

This course is designed for seniors in applied mathematics to complete the student's senior project. They will meet regularly with the instructor to provide consultation with their project and work in conjunction with other students as needed. Since the topic for each student's project will be selected by the student, the topics of the course will vary depending on the enrolled students. Each student will do a survey of the literature, define a problem statement, and develop a strategy for completion of the topic.

Prerequisite: MATH 4450.

Methods and Materials in Secondary Mathematics
MATH 4850 3 cr. 3 hr. ▲

The curriculum and pedagogy of secondary school mathematics is studied. The uses of technology in the teaching of secondary mathematics will be emphasized. The course includes a 30 hour pre-practicum of professional experiences.

Prerequisites: MATH 2400 and 2600; MATH 2860 or ENGL 4700 and a 2.75 overall GPA and 3.0 in biology, Communication/Literacy MTEL and Subject Area Exam.

Mathematics Practicum in a Secondary School
MATH 4860 6 cr. ▲

Students are assigned to cooperating schools for one half of one semester of student teaching.

Prerequisite: permission of the department.

Mathematics Practicum in a Secondary School II
MATH 4870 6 cr. ▲

Students are assigned to cooperating schools for one half semester of student teaching.

Prerequisite: MATH 4860 and permission of the department.

Independent Study
MATH 4900 1, 2, 3 cr. ▲ ●

Prerequisite: permission of the department.

Independent Study
MATH 4901 1, 2, 3 cr. ▲ ●

Prerequisite: permission of the department.

Directed Study
MATH 4975 1-6 cr.

Military Science

Foundations of Officership
MILS 1100 1 cr. 1 hr. ▲

An introduction to the personal challenges and competencies that is critical for effective leadership, including goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leadership dimensions while gaining a big picture understanding of the ROTC program and its purpose in the Army. HAF

Basic Leadership
MILS 1200 1 cr. 1 hr. ▲

Focusing on communications, leadership, and problem solving, "life skills" lessons in this semester include: problem solving, goal setting, interpersonal communication skills, and assertiveness skills. Accurate information about life in the Army, including the organization of the Army, employment benefits, and work experiences of junior officers are explained. Participation in leadership laboratories and participation in off-campus training sessions (field training exercise) is also required. HAF

Individual Leadership Studies
MILS 2100 2 cr. 3 hr. ▲

Team building techniques are introduced. Students build upon the basic leadership principles and leadership development methodologies to refine their understanding of leadership. Participation in leadership laboratories and participation in off-campus training session (field training exercise) is also required. HAF

Leadership & Teamwork

MILS 2250 2 cr. 3 hr. ▲

The study of leadership principles and the introduction to formal policies such as equal opportunity, ethics, and values continue. Complex cases of risk management are studied. Small unit movement and military tactics are covered along with the elements of how the military trains its personnel. Participation in leadership laboratories and participation in off-campus training session (field training exercise) is also required. Students who complete MILS 1100, MILS 1200, MILS 2100 and MILS 2250 have fulfilled the 3-credit Health and Fitness requirement.

Leadership & Problem Solving

MILS 3100 3 cr. 4 hr. ▲

The focus is on development of individual leadership abilities. This course reviews leadership styles, management strategies and training techniques for leaders of small units. Promoting and developing communication skills and teamwork are addressed. Students examine leadership of small units conducting conventional combat operations and tactical employment of weapon systems.

Prerequisites: MILS 1100, 1200, 2100, 2200) or advanced placement credit granted by Military Science department head.

Leadership & Ethics

MILS 3200 3 cr. 4 hr. ▲

This course is designed to continue the development as leaders by presenting instruction in the three foundational areas of leadership, interpersonal communication, and values and ethics. The leadership module contains an examination of Army leadership doctrine followed by expansion on key leadership concepts and provides feedback for cadet leadership self-development efforts. Attendance at monthly labs, attendance at formal social functions and an off campus weekend leadership exercise is required.

Prerequisite: MILS 3100 or advanced placement credit granted by Military Science department head.

Leadership & Management

MILS 4100 3 cr. 4 hr. ▲

A focus on Army operations and training management, communications and leadership skills that support the beginning of the final transition from cadet to lieutenant. Students gain knowledge and proficiency in several critical areas, including the Army's training management system, coordinating activities with staffs, and counseling skills. Three lab exercises and participation in the military staff ride is required.

Prerequisite: MILS 3200 or advanced placement credit granted by Military Science department head.

Leadership & Officership

MILS 4250 3 cr. 4 hr. ▲

A focus on completing the transition from cadet to lieutenant. Cadets organize and lead all the junior cadets. This course covers the military legal system, personnel actions and personal finances. It certifies fundamental competencies in land navigation, tactics, counseling, and interpersonal communications. The Capstone Exercise requires cadets, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers. Upon completion of this course the cadets will be prepared to shoulder the responsibility of being a commissioned officer in the United States Army. This course requires three hours of class work and three hours of physical fitness per week. Three lab exercises and a formal military ball are required.

Prerequisite: MILS 4100 or advanced placement credit granted by Military Science department head.

Music

Art of Music

MUSC 1000 3 cr. 3 hr. ▲ ●

This course approaches the study of music as an aesthetic experience. Representative styles and categories from the Middle Ages to the present are explored. Students are required to attend professional concerts. AOM, ART, GDA

Beginning Musical Instruction

MUSC 1300 1-3 cr. 3 hr. ▲

Private lessons are provided for the following instruments: baritone, clarinet, flute, horn, recorder, synthesizer, vibes, bass, double bass, guitar, oboe, saxophone, trombone, viola, bassoon, drums/percussion, harp, organ, Suzuki violin and cello, trumpet, violin, cello, harpsichord, piano, tuba, and voice. See the Humanities department chair. A fee is required.

Introduction to Music Technology

MUSC 1400 3 cr. 3 hr. ▲

Provides an overview of music and technology, combining reference material with tutorial material. Focuses on acoustics, hardware operation, music theory, notation, and composition skills through instructional software and on creating, recording, and editing sounds with digital audio applications. Programs used include Sibelius, Pro Tools, and Reason. AOM, ART

World Music

MUSC 1500 3 cr. 3 hr. ▲

This World Music course serves two primary purposes: 1) it teaches students about cultures around the world, and 2) it helps to understand the various intrinsic functions of non-Western and Western music. By examining the music of peoples from various regions, this course addresses multicultural themes and the ubiquitous role of music in society. AOM, ART, GDAN

Commonwealth of the Arts

MUSC 2000 3 cr. 3 hr. ▲ ●

Music's reflection of the values and ideals of societies past and present are explored. Inter-relationships among the fine arts disciplines are examined. AOM, ART, GDAN

Commonwealth of Ancient Arts

MUSC 2100 3 cr. 3 hr. ▲ ●

An interdisciplinary study of the humanities in ancient Western and non-Western cultures. It is a systematic overview of painting, sculpture, architecture, music, literature, drama and philosophy in a historical context of significant cultures, including Paleolithic, Neolithic, Mesopotamian, Egyptian, Greek, Roman, Chinese, Indian, and American. Influences among these and other cultures will be presented. AOM, ART, GDAN

Honors Seminar Contemporary Issues in the Humanities

MUSC 2150 3 cr. 3 hr. ▲

Students will have an opportunity to reflect on the positive and negative aspects of the arts in our society today and the impact of the arts in their lives. Topics may vary depending on the instructor and/or students enrolled. The instructor will provide a list of possible topics and additional topics will be generated by students throughout the course of the semester depending on current events and interests. ART, GDA

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Basic Music Theory

MUSC 2200 3 cr. 3 hr. ▲

The course examines rhythmic notation, including meters and tempo. Emphasis is placed on melodic notation, including intervals, scales and keys. Dynamics, an introduction to key relationships and transpositions, as well as other selected topics are covered. AOM, ART

Choral Arts

MUSC 2300 1 cr. 2 hr. ▲

A mixed chorus (soprano, alto, tenor, bass), this choir prepares choral works from various periods and styles. Section 1(choir) is open to all students. Section 2(chamber singers) is by audition only. Either ensemble partially satisfies the ensemble requirement for music minors; 3 such credits count as one ARTS course for LA&S. Extra performances are required. Both sections may be repeated for credit. AOM ART

Intermediate Musical Instruction

MUSC 2310 1-3 cr. 3 hr. ▲

Private lessons are provided for the following instruments: baritone, clarinet, flute, horn, recorder, synthesizer, vibes, bass, double bass, guitar, oboe, saxophone, trombone, viola, bassoon, drums/percussion, harp, organ, Suzuki violin and cello, trumpet, violin, cello, harpsichord, piano, tuba, and voice. See the Humanities department chair. A fee is required.

Instrumental Arts

MUSC 2400 1 cr. 2 hr. ▲

Small and large ensembles play representative works in this course. No more than six semester hours of any combination of MUSC 2300, 2400, 2500 and 2600 are applicable toward graduation. But talented students are encouraged to continue in ensembles as long as possible. AOM, ART

Class Piano

MUSC 2500 1 cr. 2 hr. ▲ ●

The class involves practical keyboard uses in classroom work; activities include accompaniment, simple transposition and harmonization of melodies at the keyboard. No more than six semester hours of any combination of MUSC 2300, 2400, 2500 and 2600 are applicable toward graduation.

Class Voice

MUSC 2600 1 cr. 2 hr. ▲

The principles of voice production are studied. Breath control, phrasing, resonance and diction are stressed. No more than six semester hours of any combination of MUSC 2300, 2400, 2500 and 2600 are applicable toward graduation.

Class Guitar

MUSC 2700 3 cr. 3 hr. ▲ ●

this is an introductory course to learning the fundamentals of guitar playing. The course will focus on learning basic chords, conventional strumming techniques and finger picking, and notes in first position as well as learning the general technique of guitar playing. Students will become familiar with the fundamental techniques of playing classical and selected popular, unaccompanied guitar styles. These techniques range from sitting position, hand positions, and nail care, to tuning, note reading, melody playing, arpeggio study, and melody and accompaniment type textures. Students will also learn basic musicianship as they discover ways to interpret musical ideas and are introduced to a variety of popular music styles. Emphasis is placed on the study of classical guitar technique. ARTS

Symphony

MUSC 3100 3 cr. 3 hr. ▲

Structural and stylistic characteristics of the symphony from the 18th century to the present are studied. CDA

Opera

MUSC 3200 3 cr. 3 hr. ▲ ●

Students study several works from the standard operatic repertoire. Some significant trends in modern opera are discussed.

Advanced Musical Instruction

MUSC 3300 1-3 cr. 3 hr.

Private lessons are provided for the following instruments: baritone, clarinet, flute, horn, recorder, synthesizer, vibes, bass, double bass, guitar, oboe, saxophone, trombone, viola, bassoon, drums/percussion, harp, organ, Suzuki violin and cello, trumpet, violin, cello, harpsichord, piano, tuba, and voice. See the Humanities department chair.

Twentieth-Century Music

MUSC 3400 3 cr. 3 hr. ▲

The course examines the idioms and aesthetic notions of the present century, together with their relationship to the past.

Appreciating the American Musical

MUSC 3450 3 cr. 3 hr. ▲

Students will read a variety of literary texts and analyze how such texts were adopted as musicals, listen to the musicals and explore recurring themes. Particular attention is given to the historical development of the musical play in the 1940s and the dominance of the American book musical from the 1940s to the 1970s. ART

American Music

MUSC 3500 3 cr. 3 hr. ▲

The course surveys American music from colonial times with some emphasis on popular and art music of the present century in the U.S.

Baroque and Classical Music

MUSC 3600 3 cr. 3 hr. ▲

The class examines various composers from Monteverdi to Beethoven. Topics covered in the course include opera, oratorio, passion, cantata, sonata forms, dance forms and shifting aesthetic views. AOM, ART, CDA

Romanticism to Rock

MUSC 3650 3 cr. 3 hr. ▲ ●

This class will examine music from the Romantic era to the American Popular Music scene, beginning with Beethoven and ending with the Beatles. Students will gain a foundation in musical elements, forms, and genres. Emphasis will be given to understanding Romanticism as a reaction to the waning order of the Enlightenment, and Modernism as a reaction the sentimentality of Romanticism. ARTS

19th Century Music

MUSC 3700 3 cr. 3 hr. ▲

The class presents a survey of major forms of 19th century music from Beethoven to Mahler.

Music in Film

MUSC 3750 3 cr. 3 hrs. ▲ ●

This course covers a variety of music produced for film, from the silent film era to the present day, in order to explore how music works, or fails to work, with visuals. Students will study the relation of music to visual aesthetics and dramatic action, and will learn to analyze compositional issues such as orchestration, instrumental timbre, use of leitmotivs, and theme development. Audio and visual materials, discussion, presentations, and projects are used to enhance the enjoyment, understanding, and experience of music used in film. No instrumental or musical ability is required for this course. ART

Film Scoring

MUSC 3760 3 cr. 3 hrs. ▲ ●

This course offers a "hands-on" study of composing music for film. Students will learn compositional techniques and procedures in various musical styles, focusing on drama analysis, spotting, and scoring with and without dialogue. Audio and visual materials, discussion, presentations, and projects are used to develop the understanding and skills necessary to score music for film.

Prerequisites: MUSC 1400 and MUSC 3750.

History of Jazz

MUSC 3800 3 cr. 3 hr. ▲

This course introduces students to the history of jazz and investigates the musical elements that make up jazz. The role of jazz in American history is explored, and various musical trends that contributed to jazz are traced. AOM, ART

Women, Music, and Society
MUSC 3900 **3 cr. 3 hr.** ▲

This course looks at the contributions of significant women in music. Compositions by women from different cultures are examined as a reflection of the social, political and economic conditions. Elements of form, structure and historical style are studied from antiquity to modern times in musical genres such as symphony, opera, chamber music, song and solo repertoire. AOM, ART, GDA

Harmony I
MUSC 4500 **3 cr. 3 hr.** ▲

The course involves the harmonization of simple melodies and studies principles of modulation and key relationships.

Prerequisite: MUSC 2200.

Harmony II
***MUSC 4510** **3 cr. 3 hr.** ▲

The course covers further work in modulation, including chromaticism and 19th and early 20th century developments.

Prerequisite: MUSC 4500 or equivalent. L

Independent Study in Music
MUSC 4901-3 **1-3 cr. 1-3 hr.** ▲ ●

The Independent Study is for selected students who have approval of both the department head and their advising instructor.

Internship in Music
MUSC 4940 **3 cr. 3 hr.** ▲

Directed Study
MUSC 4975 **1-6 cr.**

Nursing

Health Assessment
NURS 2300 **3 cr. 5 hr.** ▲

This course provides a foundation for nursing assessment of the adult client. Interviewing techniques, health history taking, physical assessment and critical thinking skills are developed. Normal findings and deviations from normal are explored. Changes related to age are discussed. A clinical component allows students to apply classroom knowledge.

Prerequisites: ENGL 1100 and 1200, PSY 1100, SOC 1100, BIOL 1200 and 1300, and CHEM 1200.

Pathopharmacology I
NURS 2500 **3 cr. 3 hr.** ▲

This is the first course of a two-course sequence, which integrates concepts from pathophysiology and pharmacology. The content focuses on alterations in physiology that produce clinical responses in the body. Pharmacology is introduced as one modality used in the treatment of disease. Theories of stress, adaptation, and systems provide the basis for understanding how the body adjusts or fails to adjust to disease processes.

Prerequisites: ENGL 1100 and 1200, PSY 1100, SOC 1100, BIOL 1200 and 1300, and CHEM 1200.

Pathopharmacology II
NURS 2600 **3 cr. 3 hr.** ▲

This is the second course of a two-course sequence, which integrates concepts from pathophysiology and pharmacology. Pharmacology is applied as one modality used in the treatment of disease. Pathophysiological changes as a result of disease processes in specific systems are explored.

Prerequisites: NURS 2500.

Foundations
NURS 2700 **4 cr. 9 hr.** ▲

This course is designed to be the foundation for nursing knowledge and theory. Emphasis is placed on professionalism, caring, communication, cultural considerations, spirituality, sexuality and health promoting activities. The nursing process is used as a framework for content. Students complete laboratory experiences focusing on basic skills.

Prerequisites: ENGL 1200, PSY 1100, SOC 1100, BIOL 1200 and 1300, and CHEM 1200. Pre or corerequisites: NURS 2500 and PSY 2200, NURS 2300 or BIOL 1650.

Medical-Surgical Nursing I
NURS 2900 **5 cr. 9 hr.**

This course establishes the foundation for core concepts in the nursing care of adults with common health alterations. The development of critical thinking skills is emphasized. Nursing care is presented using a nursing process framework. Clinical experiences occur in acute care agencies.

Prerequisites: NURS 2300, NURS 2500 and NURS 2700.
Pre or corerequisites: NURS 2600 or BIOL 1650, BIOL 2700, PSY 2200.

Nursing Care of the Child Bearing Family
NURS 2910 **5 cr. 9 hr.** ●

This course for registered nurse students examines current concepts and nursing interventions for the care of prenatal, intrapartal, and postpartal women and neonates. (RN students may exempt by exam).

Prerequisites: NURS 2300, 2600 and 2900, BIOL 1650 and 2700.

Core Concepts of Mental Health Nursing
NURS 3200 **5 cr. 9 hr.** ●

This course reviews mental health nursing concepts for individuals experiencing health alterations. Course content focuses on the etiology and treatment of mental disorders, emphasizing principles of therapeutic communication, and the application of nursing assessment and intervention. Students analyze the influence of culture, perceptions and environment on behavior exhibited by individuals, families and groups related to mental health issues. Clinical experience occurs in acute and community care agencies.

Prerequisites: NURS 2300, 2600, and 2900, BIOL 1650 and 2700.

Maternal-Newborn Nursing
NURS 3300 **5 cr. 9 hr.** ●

This course provides a foundation for care of the childbearing family. Health promotion for the developing family is emphasized in community and acute-care settings. Care of both the well and high-risk woman and newborn is included in a family-centered approach. Clinical experiences are offered in the community and the hospital.

Prerequisites: NURS 2300, 2600, and 2900, BIOL 1650 and 2700.

Medical-Surgical Nursing II
NURS 3400 **5 cr. 9 hr.** ●

This course addresses to teach the nursing care of adults with acute medical and surgical conditions. Holistic care of clients with respect for diversity is stressed. The nursing process is used as a framework to guide content. Clinical experience occurs in acute care facilities.

Prerequisites: NURS 2300, 2600, and 2900, BIOL 1650 and 2700.

Concepts of Nursing I
NURS 3500 **3 cr. 5 hr.** ●

This is one of two courses designed to provide advance placement for the **registered nurse student** that can be taken either semester or concurrently with Nursing Concepts II. The evolution and development of theoretical models of nursing as well as other historical precedents are investigated. The focus of the clinical component is utilization of the functional health pattern format to assess the health status of clients and the development of a nursing history.

Prerequisite: ENGL 1200, BIOL 1300, BIOL 2700, PSY 1100, PSY 2200, SOC 1100, pre or co-requisite ACE II Exams or equivalent.

Concepts of Nursing II
NURS 3600 **3 cr. 5 hr.** ●

This is one of two courses designed to provide advance placement for the **registered nurse student** that can be taken either semester or concurrently with Nursing Concepts I. Selected nursing diagnoses within the format of functional health patterns are addressed. Students are provided the opportunity to explore the interdependence of the multiple elements of the nursing process applied to selected case studies.

Prerequisite: ENGL 1200, BIOL 1300, BIOL 2700, PSY 1100, PSY 2200, SOC 1100, pre or co-requisite ACE II Exams or equivalent.

Topics: Portfolio Preparation
NURS 3650 **1 cr. 1 hr.** ●

Introduces registered nurse students to the concept of portfolio preparation for advanced placement. Assists students in development of professional portfolio.

Prerequisites: ENGL 1200, BIOL 1200 and 1300, BIOL 2700, PSY 1100, PSY 2200, SOC 1100, pre or co-requisite ACE II exams.

Pediatric Nursing

NURS 3900 5 cr. 9 hr. ●

This course teaches the theoretical base and clinical experience in caring for infants, children and adolescents. The focus is the major and most common disorders of infants, children and adolescents. The nursing process is the basis for providing care in a variety of settings. Health promotion aspects of preventing or alleviating health problems are addressed Clinical experience occurs in acute care agencies.

Prerequisites: NURS 2300, 2600, and 2900, BIOL 1650 and 2700.

Nursing Care of the Mentally Ill Client

NURS 3910 5 cr. 5 hr. ●

This course for registered nurse students examines current concepts and nursing measures in the care of clients with selected alterations in mental health. (RN students may exempt by exam).

Prerequisites: BIOL 1650 and 2700.

Nursing Care of the Child

NURS 3920 5 cr. 5 hr. ●

This course for registered nurse students examines current concepts and nursing measures in the care of children from infancy through adolescence. (RN students may exempt by exam).

Prerequisites: ENGL 1200, BIOL 1200 and 1300, BIOL 2700, PSY 2200, SOC 1100.

Nursing Care of the Adult

NURS 3930 10 cr. 10 hr. ●

This course for registered nurse students examines current concepts and nursing measures in the care of adult clients with selected common health problems. (RN students may exempt by exam).

Prerequisites: ENGL 1200, BIOL 1200 and 1300, BIOL 2700, PSY 2200, SOC 1100.

Nursing Research

NURS 4000 2 cr. 2 hr. ▲ ●

This course prepares students as knowledgeable research consumers. Nursing students identify and explore research problems in nursing practice. The focuses are to improve utilization of evidence-based practice and participate in research as knowledgeable participants. In addition to core lectures and discussion sessions, classroom activities are provided to enhance the learning experience.

Prerequisites: MATH 1700.
Pre or corerequisites: NURS 3600 or NURS 3200 3300, 3400 and 3900.

Community Health Nursing

NURS 4400 5 cr. 9 hr. ▲ ●

This course focuses on systems concepts as a basis for applying the nursing process with aggregate clients in the community. Special emphasis is placed on nursing care of vulnerable populations including the homeless, people of poverty, minority populations, women and children, and older adults. Primary, secondary and tertiary prevention measures are used when applying the nursing process in a variety of distributive care settings. Clinical experience occurs in community agencies.

Prerequisites: NURS 3600 or NURS 3200 3300, 3400 and 3900.

Nursing in a Global Community

NURS 4500 2 cr. 2 hr. ●

Culturally competent health care is required for professional nursing practice. Culture extends beyond traditional boundaries of race and ethnicity to other marginalized populations including sub-cultures within society. This course will explore challenges to providing such competent care in professional nursing practice generated by language, race, ethnicity, health beliefs and practices, sexual orientation, and sub-culture affiliation. Additionally, specific barriers to culturally competent care including biases and stereotypes will be challenged in this course.

End of Life Care

NURS 4510 3 cr. 3 hr. ●

This course provides students will the knowledge needed to provide care for clients at the end of life. The Neuman Systems Model is used as a theoretical framework to guide nurses as they assess and intervene in physiological, psychological, socio-cultural, developmental, and spiritual dimensions of client care. There is a focus to improve utilization of evidence-based and participate in research as knowledgeable participants. Communication, an interactive, negotiable human response as well as the foundation for growth, facilitates the process of the helping relationship at the end of life. In addition to lectures, class participation, and the discussion of case studies enhance the learning process.

Caring for Forensic Populations

NURS 4520 3 cr. 3 hr. ●

Violence occurring in the home, community, and health care institutions has a negative effect on client health and on providers of care. Preventing and reducing the consequences of violence is an integral component of professional nursing practice. Early identification and intervention with potential and actual victims and perpetrators of violence can reduce negative health outcomes. This course explores the individual, socio-cultural, environmental, and systemic factors related to violence and trauma. Necessary professional forensic nursing competencies and roles will be explored. Student will learn specific forensic health assessment, violence prevention and intervention strategies.

Chronic Illness

NURS 4750 5 cr. 9 hr. ▲

This course teaches the application of the nursing process with individuals and families in the home care setting. Emphasis is placed on primary, secondary and tertiary prevention, along with interdependence between client/family and environment. The application of critical thinking to clinical situations provides the framework for the classroom component of the course.

Prerequisites: NURS 3600 or NURS 3200 3300, 3400 and 3900.

Selected Nursing Practicum

NURS 4800 10 cr. 21 hr. ▲

This capstone course in the final semester of the nursing program gives students the opportunity to strengthen clinical knowledge and skills in preparation for entry into practice. Having both a registered nurse clinical preceptor as well as a faculty preceptor allows for the integration of classroom and laboratory content into the clinical setting. The classroom component uses a case study method to foster discussion and critical thinking.

Prerequisites: NURS 4000, NURS 4400, and 4750.
Co-requisite: NURS 4850.
Prerequisites for RN to BSN: NURS 4000, 4400, 4500, 4510 or 4520

Leadership and Management Concepts for Nursing Practice

NURS 4850 2 cr. 2 hr. ▲ ●

This course teaches concepts underlying professional career development in nursing. The roles of the nurse as manager of client care, as part of a health care institution hierarchy, and as a member of a professional collective are explored.

Prerequisites: NURS 4000, NURS 4400 and NURS 4750
Prerequisites for RN to BSN: NURS 4000, 4400, 4500, 4510 or 4520.

Independent Study

NURS 4901 1 cr. 1 hr. ▲

Independent Study

NURS 4902 2 cr. 3 hr. ▲

Independent Study

NURS 4903 3 cr. 3 hr. ▲

Directed Study

NURS 4975 1-6 cr.

Occupational/Vocational Education

These courses are only offered through Continuing Education.

Seminar for the Beginning Vocational Technical Education Teacher

OCED 2500 3 cr. ●

Designed to prepare new vocational technical teachers for their first teaching assignment, the characteristics of an effective teacher as well as the tools required by first year teachers to be successful will be explored. These include techniques for establishing effective classroom routines, student instruction and assessment, and maintaining a positive classroom/shop/laboratory climate that conveys high expectations. Students also will learn to identify the elements of a course/program curriculum, as well as how to develop a lesson plan, assign and grade homework and collaborate with colleagues to improve instruction, assessment and student achievement.

Managing Student Behavior in a Healthy and Safe Environment (Formerly Management of the Vocational Technical Environment)

OCED 2520 3 cr. ●

This course is designed to prepare vocational technical teacher candidates to organize an instructional area that is conductive to high quality learning in a healthy and safe environment. A variety of discipline concepts and strategies will be presented for application in the shop/laboratory, related classroom, and cooperative education sites. Current, relevant OSHA and child labor law standards will be reviewed and plans for a comprehensive health safety plan will be developed.

Teaching Methods for Vocational Technical Education—Instructional Strategies (Formerly Teaching Methods: Instructional Strategies in Vocational Technical Education)

OCED 2530 3 cr. ●

This course is designed to provide vocational technical teachers with a wide variety of researched-based teaching methods and instructional strategies. Students in this course will learn how to develop a unit of study and how learning styles, motivation and expectations influences instructional choices made by the vocational technical educator. Students will learn how to integrate vocational technical and academic content by using a balanced instruction.

Teaching Methods for Vocational Technical Education—Educating and Assessing the Vocational Technical Education Learner (Formerly Teaching Methods: Educating the Vocational Technical Learner)

OCED 3510 3 cr. ●

This course is designed to provide vocational technical teachers with the knowledge and tools to instruct and assess the technical, academic and employability skills of vocational technical education students. Students in this course will be able to identify, develop and model appropriate learning activities and assessments for the vastly divergent student population in vocational-technical education.

Fundamentals of Vocational Technical Education

OCED 3517 3 cr. ●

This course examines the history and philosophy of vocational technical education. The present state of federal vocational education, Chapter 731, Child Labor Laws; Chapter 622 and Title IX; and Chapter 766, State Vocational Council are covered. Additionally the course studies The National Center for Research in Vocational Education; and Federal Vocational Education Regulations.

Teaching Methods for Vocational Technical Education—Using Research-Based Practices to Develop Effective Instructional Strategies (Formerly Brain Compatibility: Teaching and Learning)

OCED 3520 3 cr. ●

This course is designed to provide vocational technical teachers with an understanding of how learning styles impact instruction and learning. Vocational technical teachers will learn how to develop a teaching unit that focuses on readiness assessment, use of learning styles, attention to whole-brain teaching, interpersonal skills, knowledge and skill assessment.

Promoting Positive Social Behavior for Students with Special Needs in Vocational Education

OCED 3524 3 cr. ●

The course provides familiarity with the continuum of services required for students with special needs in all school settings. The modifications of approach and teaching techniques which make vocational education accessible to all students are discussed in depth. A case study is required of each student in the course.

Strategies and Methods for Teaching Special Needs Students Re: Vocational Education

OCED 3525 3 cr. ●

This is a practical approach to planning instruction for special needs students in the regular class within a vocational school setting. Using a framework for applying theory in practice, teachers develop and/or attempt strategies that are applicable to their classrooms.

Implementation and Evaluation of Education Plans for Students with Special Needs

OCED 3526 3 cr. ●

The course provides experience in interpreting educational prescriptions for implementation within vocational training programs. Each student designs an individualized instructional plan describing all materials, recommended methodology and techniques of evaluation.

Seminar and Practicum in Vocational Education/Special Education

OCED 3527 3 cr. ●

Students complete a practicum or internship in an approved setting for individuals with special needs. Students are assisted in implementing the various facets of their role within a given setting. Visitations are planned not only to observe the competencies being demonstrated but to meet with school administrators in defining the role and functions. Practicum seminar is designed to assist the total group in dealing with current concerns and issues and to allow students to learn from the experiences of each other.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
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GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year.

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Developing and Implementing a Standards-Based Curriculum in Vocational Technical Education (Formerly Competency Based Vocational Education Curriculum Development)

OCED 3530 3 cr. ●

This course is designed to provide vocational technical educators with the knowledge of the elements of a quality curriculum. Students will learn how to develop a vocational technical education curriculum and a competency-based student reporting system that incorporates the standards and performance indicators of the Academic and Vocational Technical Education Curriculum Frameworks.

Computerized Vocational Technical Curriculum Management

OCED 3545 3 cr. ●

This course is designed to introduce the vocational technical educator to the microcomputer as a tool for curriculum, classroom record keeping, and planning. Students adapt, modify, and incorporate the excellent curricular resources developed within Massachusetts, including CBVE, MSCP and others into practical learning applications utilizing the computer. In addition to hands-on experience with a microcomputer, the course enables participants to blend classroom and laboratory learning with an emphasis on integrated software and its application within a vocational technical setting.

Integrated Vocational Technical and Academic Curriculum

OCED 3546 3 cr. ●

This course shares, explores and investigates Massachusetts developed curricular resources, including CBVE, MSCP, Model Academic Project and LAPS, as well as nationally devised curriculum, including Principles of Technology, CBE, and others. This learning activity examines the eight methods (academic infusing, cross articulation, vocational/technical relevance, content alignment, the academy model, specialized courses/programs, employability/career path skills and the culminating/senior project) for integration identified by the National Center for Research in Vocational Education at the University of California at Berkeley.

Assessment Standards and Evaluation

OCED 3549 3 cr. ●

Participants explore strategies for establishing student performance criteria, assessing student knowledge and attitudes, evaluating hands-on skills and determining student grades. Topics include identifying and examining existing standards and social equity in educational assessment. Methods for linking competency designed instructional objectives to evaluation and measuring instruments are reviewed, including factors related to reliability and range.

Addressing the Needs of Students with Disabilities in Vocational Technical Education (Formerly Students with Special Needs in Vocational Technical Education)

OCED 3700 3 cr. ●

This course will provide vocational technical educators with an overview of the federal and state special education laws and regulations and how they are implemented in schools in Massachusetts. Students will learn about the elements of an Individualized Education Program (IEP) and the roles of special and general educators. Students will also learn how to design curriculum and instruction using the information on the IEP and how to modify their related classrooms and vocational technical shops/laboratories to accommodate students with disabilities.

Supervised Practicum in Vocational Education

OCED 4534 3 cr. ●

A practicum is a modified teaching placement in a vocational technical school or equivalent field-based experience. Candidates function as pre-approved instructors with responsibility for demonstrating ability to implement various teaching models, familiarization with school policies, classroom management techniques and the coordination of educable training resources. Teaching is supervised by a cooperating teacher and monitored and evaluated by a university instructor. Practicum participants design competency-based lesson plans, participate actively in seminar discussions and complete a research assignment on educational reform. The eligible practicum time requirements are five hours a day for three or four days a week over six week period.

Advanced Computerized Vocational Technical Curriculum Management

OCED 4595 3 cr. ●

This course provides an orientation and application of Lotus 1-2-3 for the vocational technical setting. This software is a recognized leader in the microcomputer spreadsheets market with its ease of use, size, and power. Students learn through hands-on experience how to plan, design, implement and perform analysis utilizing a microcomputer and Lotus 1-2-3. Additionally, a historical view of spreadsheets and their impact on the manner in which effective organizations operate in the planning, creating, saving, and printing of data is emphasized. Participants interpret data using database functions and by creating and printing graphs.

Note: This course may be used as a computer science cluster requirement.

Peace Studies

Introduction to Peace Studies

IDIS 1900 3 cr. 3 hr.

In this introduction, the field of Peace Studies, an inter-disciplinary approach, the students will explore conflict—its origins, management, ramifications, and attempts to move beyond it. Conflict will be explored on the individual, group, national, and international levels.
I, IDIS

Dilemmas of Peace and War

IDIS 2100 3 cr. 3 hr. ▲ ●

I, L, C, IDIS

Origins of Conflict Electives

IDIS	1200	*Introduction to International Studies*
IDIS	1800	*Global Issues*
ECON	2500	*Economic Development*
SOC	2500	*Race and Ethnic Relations*
SOC	2600	*Sociology of Developing Societies*
SOC	3000	*Social Stratification*
POLS	2200	*International Relations*
POLS	3800	*Third World Politics, Economics and Society*
PSY	2250	*Psychology of Women*
PSY	2400	*Psychology of Captivity*

Vision of Peace Electives

PHIL	3610	*World Religions*
PSY	2370	*Interpersonal Effectiveness*
PSY	2550	*Group Dynamics*
PSY	2570	*Small Group Leadership*
SOC	2250	*Cultural Anthropology*

Philosophy

Introduction to Western Philosophy
PHIL 1000 3 cr. 3 hr. ▲ ●

The course serves as an introduction to the problems, methods and goals of classical and contemporary Western philosophy. Emphasis is placed upon how these differ from and relate to other fields of human knowledge. CTW, GDC

Logic
PHIL 1100 3 cr. 3 hr. ▲ ●

The course introduces techniques for analyzing the structure and validity of arguments in a natural language, such as English, as well as the concepts and principles of validity. Emphasis is on truth-functional and quantification inference, and a procedure in formal systems. SMT

Philosophy of Education
PHIL 2000 3 cr. 3 hr. ▲ ●

This course seeks to trace the origin and development of major educational theories and their contemporary implications.

Theories of Knowledge
***PHIL 2200 3 cr. 3 hr.** ▲

The problems and methods of human knowledge are explored. Theories are presented in the light of idealism, realism, pragmatism and existentialism.

Prerequisite: PHIL 1000 or 1100.

American Philosophy
***PHIL 2440 3 cr. 3 hr.** ▲

The course presents a study of American thought from the Colonial period to the present.

Contemporary Ethical Problems
PHIL 2500 3 cr. 3 hr. ▲ ●

This course examines the nature of values and morality. Application of ethical theory to such controversial moral issues as criminal punishment and the death penalty, abortion, euthanasia and suicide, the ethical treatment of animals, poverty and the distribution of wealth, prejudice and discrimination, affirmative action, civil disobedience, and war will be part of the curriculum. CTW

Contemporary Ethical Systems
PHIL 2550 3 cr. 3 hr. ▲

The course is a critical examination of the major ethical theories in classical and contemporary philosophy including Aristotle's perfectionism, Aquinas' natural law ethics, Kant's deontological ethics, Bentham and Mill's utilitarianism, existentialism, emotivism, and personalism. Topics covered include values and facts; morality and ethics; objectivism, subjectivism, and relativism; ethics and science; and ethics and religion.

Philosophy of Human Nature
PHIL 2600 3 cr. 3 hr. ▲ ●

The course provides an exploration of human nature or personhood from the triple perspectives of philosophy, religion and behavioral science. The class focuses on the following thinkers and movements: Plato, Christianity, early modern individualism, Marxism, Freud, existentialism, Frankl's logotherapy, Skinner, Fromm's humanism and personalism. CTW, GDC

Ancient and Medieval Philosophy
PHIL 3310 3 cr. 3 hr. ▲

The course studies the beginnings of Western philosophy, including the pre-Socrates, Plato, Aristotle and several other thinkers of the period.

Prerequisite: PHIL 1000 or PHIL 1100.

Renaissance and Modern Philosophy
***PHIL 3330 3 cr. 3 hr.** ▲

The course explores trends of thought from 14th century nominalism through the renaissance to continental rationalism and British empiricism.

Prerequisite: PHIL 1000 or PHIL 2600.

Contemporary Philosophy
PHIL 3340 3 cr. 3 hr. ▲

The course provides an examination of some current trends and issues in contemporary American, British and European philosophy.

Prerequisite: PHIL 1000 or PHIL 2600.

Philosophy of Religion
***PHIL 3600 3 cr. 3 hr.** ▲ ●

This course examines the nature of religious experience and the problem of God's existence as seen in classical Western theism and process philosophy. Differences between Western and Eastern religion, and between religion and science are discussed. CTW

Prerequisite: PHIL 1000 or PHIL 2600.

World Religions
PHIL 3610 3 cr. 3 hr. ▲

This course studies the principal world religions, including Buddhism, Christianity, Islam, Hinduism and Judaism. Emphasis is placed on their basic tenets and insights into spiritual values. CTW, GDCN

Philosophy of Art
PHIL 4100 3 cr. 3 hr. ▲

The nature of beauty and aesthetic experience, especially as embodied in the arts is explored. Relation of aesthetic experience to moral and technological experience is discussed. Students will survey and critically evaluate different theories of aesthetics in Western philosophy. A synthesis of subjective and objective theories is included.

Political and Social Philosophy
PHIL 4200 3 cr. 3 hr. ▲

The course examines the various political and social ideas beginning with Plato and continuing to Marx.

Prerequisite: PHIL 1000 or PHIL 2600 or POLS 1000 or POLS 1100.

Philosophy of Science
***PHIL 4300 3 cr. 3 hr.** ▲

The course analyzes the methods and goals of the physical sciences, how they differ from the social sciences, and the philosophic problems encountered in scientific pursuits.

Philosophy of Language
***PHIL 4400 3 cr. 3 hr.** ▲

This course is the study of theories about structure and meaningfulness of language, especially in 20th century Anglo-American thought.

Prerequisite: PHIL 1000 or 1100.

Marxism
***PHIL 4430 3 cr. 3 hr.** ▲

Origins, development, and contemporary application of Marx's thought are explored. The course attempts to provide an understanding of society and history by a philosophy identified with political economy.

Prerequisite: PHIL 1000 or PHIL 2600.

Philosophy of Love
PHIL 4500 3 cr. 3 hr. ●

The course analyzes the concept of love as employed in the social and moral philosophies of various classical and contemporary thinkers.

Ethical Issues in Business
PHIL 4700 3 cr. ▲ ●

The first objective of the course is to develop proficiency in the identification and analysis of ethical issues as they arise in business. The second objective is to acquaint the student with some specific ethical problems currently faced by businessmen and women: whistle-blowing, discrimination, truth in advertising, product safety and the environment. Both theoretical and actual cases are studied as well as two current ethical theories.

Independent Study
PHIL 4903 3 cr. 3 hr. ▲ ●

The Independent Study is open to students who have permission of the supervising instructor and the department chairperson. Course of study, meetings and credit are arranged with approval.

Physics

Physical Science I

PHYS 1100 3 cr. 4 hr. ▲ ●

This course is designed to help non-science students in developing a meaningful and functional understanding of key physical science concepts and methodology. Topics include light, color and electricity. The course is taught with a combination of lectures, group discussions and learning-by-doing activities. The emphasis is to provide students with open-ended problem solving environments that facilitate insight into the nature of science as an intellectual activity, and to encourage students to explore alternate conceptions of physical phenomena. SMT

Prerequisite: Math readiness.

Physical Science II

PHYS 1200 3 cr. 4 hr. ▲ ●

This course is designed to help non-science students in developing a meaningful and functional understanding of key physical science concepts and methodology. Topics include motion, force, heat, energy and nature of matter. The course is taught with a combination of lectures, group discussions and learning-by-doing activities. The emphasis is to provide students with open-ended problem solving environments that facilitate insight into the nature of science as an intellectual activity, and to encourage students to explore alternate conceptions of physical phenomena. SMT

Prerequisite: Math readiness.

Astronomy

PHYS 2000 3 cr. 3 hr. ▲ ●

After a brief introduction to the history of astronomy in Western civilization we discuss at an elementary level how light is produced and how telescopes work with light. In turn we then examine the solar system (comparative planetology) and the birth, evolution and death of stars and in the end consider the birth and death of the universe. SMT

General Physics I

PHYS 2300 4 cr. 5 hr. ▲ ●

This first-semester general college physics course consists of studies in the principle and application of classical mechanics, waves, sound and heat. Typical topics include description of motions, Newton's laws of motion, Kepler's law of planetary motion, universal gravitation, work and energy, conservation laws, temperature, heat, and laws of thermodynamics. SMT

Prerequisite: MATH 1300 or equivalent.

General Physics II

PHYS 2400 4 cr. 5 hr. ▲ ●

This second-semester general college physics course consists of studies and applications of wave motions, sound, electricity, magnetism, light and optics. Typical topics include Coulomb's law, electric force and field, potential and capacitance, electric circuits, magnetic force and field, magnetic forces on moving charges, electric induction, laws of reflection and refraction, mirrors and lenses, optical instruments, interference and diffraction of light. SMT

Prerequisite: MATH 1300 or equivalent and PHYS 2300.

Calculus-Based Physics I

PHYS 2600 4 cr. 5 hr. ▲

The principles and applications of classical mechanics and heat are studied using the language of calculus. SMT

Prerequisite: MATH 2400.

Calculus-Based Physics II

PHYS 2700 4 cr. 5 hr. ▲

The principles and applications of classical electricity, magnetism, and optics are studied using the language of calculus. SMT

Prerequisite: PHYS 2600.

General Physics III

***PHYS 3000 3 cr. 3 hr. ▲**

This third-semester of general college physics course, discusses the inadequacy of classical physics and introduces the theories and models of modern physics. Topics covered in class work include special relativity and the development of quantum theory as depicted in blackbody radiation, photoelectric effect, and X-rays, the wave function and the uncertainty principle, atomic spectra, Bohr's model of hydrogen, electronic configuration of atoms, the exclusion principle and the periodic table, properties of nuclei, binding energy, radioactivity and the decay processes, radiation hazards, and nuclear reactions.

Prerequisites: PHYS 2300 and PHYS 2400.

Independent Study

PHYS 4900 3 cr. ▲

The Independent Study is open to students who have permission of the supervising instructor and the department. The course of study, meetings, and credit are arranged upon approval.

Directed Study

PHYS 4975 1-6 cr.

Plastics Technology

These courses are only offered through Continuing Education.

Blueprint Reading

PLAS 1010 3 cr. ●

This course introduces the basic concepts of blueprint reading and discusses types of lines, angles and views of a drawing. The student also learns about dimensioning circles, arcs, holes and threads. Emphasis is on understanding how to interpret a blueprint; with time permitting, students learn how to draw a blueprint.

Industrial Electrical Maintenance

PLAS 1030 ●

This course covers the concepts of electrical troubleshooting of injection molding machines and associated equipment. Familiarization with basic electricity symbols, blueprint reading, meters used for troubleshooting, conventional and solid ladder diagrams/schematics, and troubleshooting are stressed. Programmable Logic Controls (PLC) are examined.

Mold Design

PLAS 2020 3 cr. ●

This course examines the interrelation of plastics material processing, product design and function, and mold design and construction. Fundamental principles of cavity design, material feed systems, ejection systems, parting surfaces, mold actions, cavity and core steel selections, 3-plate, insulated runner and hot runner molds are discussed.

Prerequisite: PLAS 1010.

Hydraulics/Pneumatics

PLAS 2040 3 cr. ●

This course involves a theoretical and practical study of hydraulics and pneumatics, the modern means of power transmission. This course surveys component design and function with an emphasis on problem definitions and solutions. Following an introduction to hydraulics and pneumatics, a study is made of valves, pumps, circuits and troubleshooting any hydraulic system.

Injection Molding

PLAS 2050 3 cr. ●

The reciprocating screw injection molding machine; the components of injection molding machines; the molding cycle; melting and flow theory, including gate seal-off, basic trouble shooting and process effects, are examined. The students have hands-on laboratory experience and are responsible for a class presentation.

Principles of Supervision

PLAS 2070 3 cr. ●

The purpose of this course is to develop an understanding of the role and responsibilities of the supervisor and to strengthen values and skills related to key supervisory functions. The principles and topics addressed include problem solving, decision making, leadership, management ethics and communication. This course is recommended for experienced and new supervisors and those aspiring to supervisory positions.

Polymeric Materials, Design, and Application

PLAS 3060 3 cr. ●

This course provides comprehensive coverage of polymeric materials, plastic design and test methodology. Material properties, characteristics and application are presented for injection molded thermoplastic resins. A discussion of polymer blends and compounds using fillers, additives and reinforcing fibers are included. Property identification and the associated test procedure are reviewed with hands-on testing provided for the major properties. In addition, plastic product design techniques and application are discussed to complement the discussion of materials.

Statistical Process Control

PLAS 3080 3 cr. ●

The student learns the use of Statistical Methods and SPC to improve quality and productivity through measurement, control and reduction of variation in the process. Topics covered include basic statistics, the normal distribution, control chart theory, process capability studies and gage and measurement analysis. Simple metrology concepts and the basics of geometric dimensioning/tolerancing are also covered.

Political Science

United States Government

POLS 1000 3 cr. 3 hr. ▲ ●

In modern American government, the major political institutions, such as the presidency, the Congress, and the Supreme Court, are examined. Their constitutional antecedents and their modern functions are presented. Special attention is given to the current bureaucracy, elections and the political actors in the election process. CTW

Introduction to Political Science

POLS 1100 3 cr. 3 hr. ▲

This course represents an introduction to the field of political science. Political science is the study of how people interact with one another in their communities, whether they are as small as the Fitchburg State University campus, or as large as the entire global community. The course is divided into the following three sections, each of which represents an important sub-field within the discipline: political philosophy, American government and international politics. CTW

State and Urban Government

POLS 1500 3 cr. 3 hr. ▲

The class focuses upon current issues and politics in urban and state government and attempts to evaluate proposed solutions to issues.

Global Issues

IDIS 1800 3 cr. 3 hr. ▲ ●

This course examines the interdependency of the world's nations by focusing on current events in the international arena and issues such as ozone depletion, pollution, the global economy, conflict and cooperation, population and hunger.

Europe Today

POLS 2110 3 cr. 3 hrs. ▲

Europe today is an introduction to the major themes in modern European history and political science. The focus will be on the roots of contemporary Europe, European politics and economics, ethnic and religious conflict, citizenship and immigration, European culture and Europe's place in the world and relationship with the United States. Credit is not awarded for both HIST 2110 and POLS 2110.

Contemporary International Relations

POLS 2200 3 cr. 3 hr. ▲

The course studies critical problems confronting the present international system. Armed conflict and internal violence, as well as prospects for the resolution of conflict are explored. CTW, GDCN

Prerequisite: POLS 1100.

Introduction to the Legal Process

POLS 2270 3 cr. 3 hr. ▲ ●

This course serves as an introduction to the American legal system. Emphasis is placed on how courts and lawyers function, how cases are decided and the means by which courts interpret legislation.

Prerequisite: POLS 1000 or 1100.

Political Science Research Methods

POLS 2400 3 cr. 3 hrs.

Political Science Research Methods (PSRM) introduces students to the scientific and quantitative study of politics. It introduces the scientific method and concepts, measurement techniques, research design, data gathering techniques (univariate, bivariate, and multivariate), and the limitations to the study of politics via science and quantitative techniques.

Political Systems of the Modern World

POLS 2500 3 cr. 3 hr. ▲

The course provides a comparative analysis of modern national governments. The importance of the world's political heritage and the implications for the emerging nations of liberal democracy, communism and dictatorship are explored.

Prerequisite: IDIS 1200 or IDIS 1800.

Global Issues in Film

IDIS 2540 3 cr. 3hr. ▲ ●

This course introduces students to crucial global issues of our time, many of which principally concern developing, non-Western nations, but all of which will impact the future of the U.S. Through film viewings, readings, writing, and discussion, students will engage with global problems and learn to develop their own critical viewpoints on complex issues. Students will analyze both documentaries and narrative films as artistic treatments of human problems. Their final project will require an in-depth study of, and presentation on, media representations of global issues pertaining to one nation. CTW, GDCN

Prerequisites: ENGL 1100 and 1200

Sex, Race and the Constitution

POLS 2550 3 cr. 3 hr. ▲ ●

This course examines the long history of discrimination in the United States on the basis of race and gender. It examines in detail the guarantee of equal protection of the law found in the 14th Amendment to the Constitution and how the meaning of what is equal have evolved over time. Topics covered will include how to define and measure equality, affirmative action, racial preferences in college admissions, voting rights, distinction based on gender, equality based on physical differences between men and woman, the evolution of the right of privacy, abortion and sexual harassment.

Prerequisite: POLS 1000 or POLS 1100 or CJ 2000.

The First Amendment

POLS 2600 3 cr. 3 hr. ▲

This course examines the basic rights and freedoms derived from the First Amendment to the Constitution. The course will examine in depth great controversies of freedom of speech, press and religion. Topics covered will include protection for hate speech, speech codes on college campuses, prior restraints on the press, and free exercises of religion, and governmental limitations on the establishment of religion.

Prerequisite: POLS 1000 or POLS 1100 or CJ 2000.

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Criminal Procedure: Rights of the Accused

POLS 2700 3 cr. 3 hr. ▲

This course examines the basic rights and freedoms derived from the portions of the Bill of Rights addressing criminal procedure. The course will examine in depth the fourth, fifth, sixth and eighth Amendments to the Constitution. Topics covered will include protection against unreasonable searches and seizures, self-incrimination, double jeopardy, due process of law, the right to counsel, the right to confront witnesses, trial by jury and the meaning of cruel and unusual punishment.

Prerequisite: POLS 1000 or POLS 1100 or CJ 2000.

International Organizations

POLS 2701 3 cr. 3 hr. ▲

The frequent international decisions confronting country and international organizational leaderships, as well as nongovernmental organizations and private sector leaderships underscore how this course focuses on some of the biggest contemporary international issues in the twenty-first century. The course aims to strengthen the student's grasp of and judgement about political, economic and security/military issue areas of global politics and the impact of international organizations, successful or not.

Public Policy Analysis: Case Studies in American Politics

POLS 3000 3 cr. 3 hr. ▲

The course covers four major divisions of public policy: health, education, labor and welfare. The aim is to attain an understanding of how the American political system works through a study of the policy that has come out of that system.

Prerequisite: POLS 1000 or POLS 1500.

The Conduct of American Foreign Policy

POLS 3400 3 cr. 3 hr. ▲ ●

American policies around the globe, and responses to such global issues as the environment, human rights or nuclear proliferation, have become increasingly significant on a national and international level. This course will introduce students to American foreign policy. L

Constitutional Law

POLS 3500 3 cr. 3 hr. ▲

Constitutional Law is the product of interpretation, power and political calculation. The collusion and collision of these forces produces the parameters of our governmental system. The U.S. Supreme Court over the years has issued many decisions which have fundamentally shaped and altered the scope and distribution of government authority. This course is the study of the product of these decisions and the shaped our current system of government. L

Prerequisite: POLS 1000 or POLS 1100 or CJ 2000.

International Terrorism

POLS 3510 3 cr. 3 hr. ▲ ●

This course applied to an interdisciplinary approach to identify the contexts, origins, causes, patterns, trends, and explanations of international terrorism. Students will study terrorist organizations, their structure, financing, agenda, objectives, methodology, international links and use of technology. They will also study anti-terrorist measures, state-sponsored terrorism and emergency management as it affects terrorist incidents. Credit is not awarded for both POLS 3510 and CJ 3510

Prerequisite: POLS 2000.

Asian Politics and Culture

POLS 3700 3 cr. 3 hr. ▲

This course introduces the politics and culture of three major Asian states: China, Japan, and India. It begins with their philosophy, history and society to give students a basic understanding of the Asian peoples and then, approaches their politics.

Prerequisite: IDIS 1200 or IDIS 1800.

Third World Politics, Economics, and Society

POLS 3800 3 cr. 3 hr. ▲

The course represents an introduction to the developing nations of Africa, Asia and Latin America. These developing nations have a significant impact on global politics. Through an examination of the history, politics, economics and societies of these nations, the students will gain a greater understanding of the developing world.

Prerequisite: IDIS 1200 or IDIS 1800.

Senior Seminar in Political Science

POLS 4000 3 cr. 3 hr.

The mission of this course is twofold: first to engage original research in the field of Political Science and second to develop an integrative portfolio demonstrating that students have mastered the skills needed to graduate with a degree in Political Science. Students will engage in a semester-long research project on aspects of current importance in the discipline. This will include topic selection, literature review, methodology, and extrapolation of Political Science theory. Secondly, students will organize work products retained from previous courses in a portfolio, which must be submitted and evaluated as part of this course. Using these work products as evidence, students will complete an integrative analysis of their competencies in Political Science. This analysis will thoughtfully describe how and what they have learned as a Political Science major.

Prerequisite: Senior standing as a Political Science major

History of Political Theory

POLS 4200 3 cr. 3 hrs. ▲ ●

This course traces the development of political philosophy from the early modern up to the birth of the modern. In a series of readings we will examine such concepts as the "state of nature" and its concomitants—natural law, natural rights, civil society, the "primitive," the right to property (private or otherwise)—as well as the material foundations of social and political arrangements, warfare and its role in the state of nature and/or civil society, the power of the executive, and even slavery. By its very nature this course is interdisciplinary, as it is both an introduction to the history of ideas and a survey of political philosophy.

Moot Court

POLS 4350 3 cr. 3 hr.

In this course, students will intensively study a specific area of law for the purpose of arguing in a moot court competition. Moot court involves teams of student-contestants, clients burdened by a legal problem, briefs and oratory detailing the dimensions of the legal problem before an appellate court, and the judging of performances by panels of faculty and attorneys. The top teams emerging from this course will be eligible to represent the university at the national tournament.

Intitute for Understanding Government Decision Making

POLS 4360 3 cr. 3 hr. ▲

The institute focuses on understanding the inner workings and political dynamics of government decision making that affects us locally, regionally, and globally. We integrate our invited elected officials, senior-level policy makers, strategic researchers, business leaders, and nongovernmental organization directors into our daily exploration and application of cutting edge case studies and simulation crisis scenario exercises.

Independent Study in Political Science

POLS 4900 3 cr. 3 hr. ▲ ●

The Independent Study is open to students who have the permission of the supervising instructor and the department. The course of study, meetings, and credit are arranged upon approval.

Legal Internship

POLS 4905 3 cr. 10 hr. ▲
POLS 4915 6 cr. 20 hr. ▲
POLS 4920 9 cr. 30 hr. ▲
POLS 4925 12 cr. 40 hr. ▲

Internships are available in several regional law offices for those persons interested in paralegal work. These internships prepare students for positions in law offices, public administration and other human services work.

Internships in Political Science

POLS 4940 3-12 cr. ▲

Off-campus opportunities, carrying appropriate academic credit, are available in local, state and federal government offices and with political campaigns. Internships are open to students who have the permission of the department. Credit and hours are arranged by special permission.

Directed Study

POLS 4975 1-6 cr.

Psychological Science

General Psychology

PSY 1100 **3 cr. 3 hr.** ▲ ●

The course introduces the student to the contemporary discipline of the science of human behavior and mental processes. Topics investigated include the scientific method, biological bases of behavior, maturation, motivation, emotions, learning, personality and adjustment. The course is prerequisite for all other courses in Psychology. CTW

Human Growth and Development

PSY 1200 **3 cr. 3 hr.** ▲ ●

This lifespan course emphasizes a study of the physical, physiological, social and psychological development of the individual from conception to old age.

Research Design and Analysis I

PSY 2000 **4 cr. 4 hr.**

This is an introductory course in research design and statistics. The course will give students the tools required to conduct basic descriptive research and simple data analysis in psychology and related fields. APA (American Psychological Association) format will be introduced.

Prerequisite: PSY 1100 or PSY 2200 and at least a 2.0 in MATH 1700.

Research Design and Analysis II

PSY 2100 **4 cr. 4 hr.**

This course is a continuation of the study of the scientific method and data analysis as it applies to the study of psychological processes. This course will focus upon the philosophy of experimentation, techniques of systematic observation, experimental control and specific types of experimental designs. Data analyses will be introduced for each type of research design discussed. Students will design, conduct, analyze and write in APA format.

Prerequisite: PSY 1100 or PSY 2200 and PSY 2000.

Introduction to Research Methods

PSY 2110 **3 cr. 3 hr.** ▲ ●

The emphasis in this course is on research design, including consideration of sampling procedures, questionnaire design, methods of observation and reporting.

Prerequisite: PSY 1100 or PSY 2200.

Cognitive Neuroscience

PSY 2140 **3 cr. 3 hrs.** ▲ ●

Introduction to Cognitive Neuroscience serves to introduce and cultivate an appreciation of the complexity of cognitive functioning, behavior and their relationship with the brain. The course is designed to take a systems approach to understanding issues related to the study of brain, mind, and social relations. The course will introduce scientific findings from the fields of biology, psychology, linguistics, and computer science. Students will learn how this multidisciplinary approach is leading the way to answering some of humankind's most enduring questions related to "mind", "awareness", "knowing", believing", "reality", and "free will".

Adolescent Psychology

PSY 2230 **3 cr. 3 hr.** ▲ ●

Adolescence as a stage of development and as a cultural phenomenon is investigated in this course. The influence of physical, cognitive and psychosocial factors on the adolescent's search for identity are examined. Emphasis is on an interdisciplinary approach that draws on relevant theories and research from a wide range of fields.

Prerequisite: PSY 1100 or PSY 2200.

Adult Development

PSY 2240 **3 cr. 3 hr.** ▲

This course introduces the student to theories and research for the periods of young and middle adulthood. Physical, mental and personality processes are covered, as well as issues and problems of research in adult development. Application of this knowledge to adults in their relationships and in their work settings is stressed.

Prerequisite: PSY 1100 or PSY 2200.

Psychology of Women

PSY 2250 **3 cr. 3 hr.** ▲

Objectives of this course include an increased awareness of the psychological development of women and of the dimensions of self and personhood in relation to society. The examination and analysis of issues relative to current debate concerning the status of women are explored.

Prerequisite: PSY 1100 or PSY 2200.

Gerontology: The Psychology of Growing Old

PSY 2260 **3 cr. 3 hr.** ▲

This course examines the developmental changes, including both gains and losses, which occur in the later part of the life span. The course focuses on theory and research related to biological, physical, cognitive and psychosocial changes that occur in late life. The emphasis is on understanding the normal aging process. Research methods and designs used to study aging are also covered.

Prerequisite: PSY 1100 or PSY 2200.

Psychology of Human Sexuality

PSY 2280 **3 cr. 3 hr.** ▲

This course includes a study of the relationships among the various aspects of sexuality, including relationships, social norms and cross-cultural variations in sexual behavior.

Prerequisite: PSY 1100 or PSY 2200.

Psychology of Personality

PSY 2300 **3 cr. 3 hr.** ▲ ●

Dynamic factors in personality formation are studied through some of the leading theoretical positions on personality development.

Prerequisite: PSY 1100 or PSY 2200.

Abnormal Psychology

PSY 2350 **3 cr. 3 hr.** ▲ ●

This course presents an overview of the symptoms associated with each of the major diagnostic categories described in the current edition of the Diagnostic and Statistical Manual of Mental Disorders. Subjective experience of the disorders, their etiologies and their treatments are addressed.

Prerequisite: PSY 1100 or PSY 2200.

Interpersonal Effectiveness

PSY 2370 **3 cr. 3 hr.** ▲ ●

This is a lab-based course which introduces and develops interpersonal competence, particularly as it pertains to dyadic situations. Basic skill areas such as observation, listening and questioning are addressed, as are integrative skills, such as conflict resolution and relationship development. Students are asked to become more aware of their own interpersonal behavior, and are introduced to the extensive research literature on interpersonal behavior. Applications in both the personal and the professional domain are addressed. The class meets LAS speaking and listening requirement for the Psychology major.

Prerequisite: PSY 1100 or PSY 2200.

Psychological Testing

PSY 2450 **3 cr. 3 hr.** ▲ ●

This course is designed to give students a broad understanding of the theory and use of psychological testing. Methods of test evaluation, analysis and interpretation are presented. Standardized testing instruments used to measure human cognitive and affective factors are explored and their purposes reviewed.

Prerequisite: PSY 1100 or PSY 2200 and MATH 1700

Social Psychology

PSY 2500 **3 cr. 3 hr.** ▲

This course provides an introduction to the study of human social behavior. Representative topics include attitudes and their formation, aggression, prosocial behavior, conformity and interpersonal attraction, as well as group dynamics, structure and leadership. The application of social-psychological research to contemporary social problems is also considered.

Prerequisite: PSY 1100 or PSY 2200.

Group Dynamics

PSY 2550 3 cr. 3 hr. ▲ ●

The nature and dynamics of interpersonal relationships are revealed in typical group settings, such as classrooms, work settings, and other discussion-oriented groups. Emphasis is on both content and process as demonstrated in a laboratory learning environment. The course may include a 10-hour intensive experience. The class meets LAS speaking and listening requirements for the Psychology major.

Prerequisite: PSY 1100 or PSY 2200.

Small Group Leadership

PSY 2570 3 cr. 3 hr. ▲

This course is designed to equip students for planning and conducting meetings requiring the coordination of small groups of people. Participants study and practice basic leadership skills applicable to a variety of small group settings. They develop and demonstrate these skills in the context of small group participation in class and as leaders of extra class groups. The class meets LAS speaking and listening requirements for the Psychology major.

Prerequisite: PSY 1100 or PSY 2200.

Organizational Psychology

PSY 2610 3 cr. 3 hr. ▲ ●

This course examines organizational influences on motivation and satisfaction of the workforce. Methods of surveying organizational climate are introduced, and a variety of intervention methods are evaluated.

Prerequisite: PSY 1100 or PSY 2200.

Psychology of Human Resources

PSY 2645 3 cr. 3 hr. ▲ ●

This course addresses the psychological theory and research concerning human resource systems in organizations. The course covers methods of job analysis, development and use of assessment tools to select employees, performance measurement and appraisal and employee training and development. The course also addresses the legal and ethical issues of discrimination in the work setting.

Prerequisite: PSY 1100 or PSY 2200.

Organizational Leadership

PSY 2655 3 cr. 3 hr. ▲ ●

This course provides a treatment of the major issues in personnel psychology and emphasizes the psychological aspects of personnel systems. The focus of the course is on the psychological assessment of potential and current employees as a means for fitting workers into jobs. Emphasis is also placed on the employment discrimination issues that may emerge in the work setting and the use and interpretation of descriptive and inferential statistics in personnel decision making.

Prerequisite: PSY 1100 or PSY 2200.

Psychology of Sport and Exercise

PSY 2660 3 cr. 3 hr.

Sport and exercise psychology is the scientific study of people and their behavior in sport and exercise activities, and the application of the resulting knowledge. In this course we review reasons for involvement in sport and exercise, and review the effects of physical activity on mental health and well-being. We also address factors that influence individual and team performance, such as motivation, confidence, and group dynamics. Finally, students are expected to engage in some form of sport or exercise during the course, and to consider how course concepts can help them achieve enjoyment and success.

Prerequisite: PSY 1000 or PSY 2200

Health Psychology

PSY 2665 3 cr. 3 hrs. ▲ ●

The course will provide students with a general introduction to theories and research within the field of health psychology. We will cover several topics in the field including the degree to which health behaviors can be predicted by health beliefs and cognitions, patient-provider communication, psychoneuroimmunology, coping with chronic illness, and models of health promotion and prevention. Students will be exposed to these topics through theoretical papers and primary research studies.

Prerequisite: PSY 1000 or PSY 2200

Psychology in Action

PSY 2680 3 cr. 3 hr.

In this seminar course students will explore trends and emerging specialities in the field of professional psychology and debate current issues and controversies. An important part of the course is a major project that connects psychology to each student's personal career goals.

Prerequisite: PSY 1100 or PSY 2200.

Educational Psychology

PSY 2700 3 cr. 3 hr. ▲

The contributions of psychological science to the field of education, including considerations of varied teacher and learner characteristics, learning environments, theories of learning and achievement, and the use of assessment in instructional design and educational decisions, are covered.

Prerequisite: PSY 1100 or PSY 2200.

Cognitive Development

PSY 2810 3 cr. 3 hr.

The goal of this course is to become familiar with major theoretical and empirical issues of cognitive development from infancy to adolescence. Students will develop a basic understanding of the science of cognitive development and the ability to apply their knowledge to the field of education.

Prerequisite: PSY 1100 or PSY 2200

Perceptual Development

PSY 2820 3 cr. 3 hr.

The goal of this course is to development a basic understanding of visual and auditory perceptual development during infancy. Lectures, reading and other assignments will focus on classic and contemporary theories of how perception develops and evaluate current perceptual development research.

Prerequisite: PSY 1100 or PSY 2200.

Socio-Emotional and Personality Development

PSY 2830 3 cr. 3 hr.

This course will examine the biological, social and psychological processes underlying socio-emotional and personality development. Major theoretical perspectives will be examined through advanced readings and primary sources. Emphasis will be given to the interrelated developmental processes underlying each behavioral domain. Contectual factors such as family, peers, school and career choices, and those related to development and change in such areas as self-concept, gender role, identity formation, moral reasoning, prosocial and aggressive behaviors will be considered.

Prerequisite: PSY 1100 or PSY 2200.

Developmental Psychopathology

PSY 2840 3 cr. 3 hr.

This course examines the field of Developmental Psychopathology or the study of the developmental processes that contribute to the formation of, or resistance to, psychopathology. We will cover the major theories that explain the development of childhood disorders such as, autism, ADHD, eating disorders, depression and anxiety as well as, the symptoms and treatment of different disorders. We will also address the many influences on the development of psychopathology in children, such as, culture, family, peer groups and genetics. B

Prerequisite: PSY 1100 or PSY 2200.

Addictive Behavior

PSY 2950 3 cr. 3 hr.

This course is designed for students who plan a career in the helping professions (including education), or who wish to understand the cognitive, emotional, social and biological correlates of alcohol and other drug abuse, or other addictive behaviors. A framework is presented for viewing such compulsive behaviors as part of a continuum from normal to dysfunctional, and controversies in the field are discussed. Students will be exposed to models of addiction, a classification of drugs, prevention of alcohol and other drug abuse and information necessary to work with clients who are affected by addiction, including assessment and diagnosis, modalities of treatment, the role of support groups and relapse prevention. In addition to lectures and class discussion students are required to attend community support group meetings and to participate in a community prevention project such as the (Great American Smokeout). This course is cross-listed as HMSV 2950.

Prerequisite: PSY 1100 or PSY 2200.

Advanced Child Psychology

PSY 3220 3 cr. 3 hr. ▲

This course explores, in greater depth, principles and theories learned in previous developmental courses (e.g., Cognitive Development, Perceptual Development, Socio-Emotional and Personality Development, Developmental Psychopathology). An emphasis is placed upon reading primary literature and journal articles, and the course acquaints the student with methodology used in contemporary research in child development. Through assigned exercises, papers, and individual or group projects, students focus on selected issues in child development.

Prerequisites: PSY 2000, PSY 2100, MATH 1700.
At least one from the following: PSY 2810, PSY 2820, PSY 2830, PSY 2840.

Experimental Psychology

PSY 3410 3 cr. 3 hr. ▲

This course is an analysis and study of the scientific method, experimental designs and laboratory methods in behavioral science, emphasizing laboratory experiments and scientific communication of results. Students design, analyze and report their own research. Computer data analysis is also covered. The course meets LAS junior/senior writing requirements, as well as LAS requirements for computer literacy for the Psychology major.

Prerequisites: PSY 2000, 2100, and MATH 1700;
junior or senior standing in the major, permission of Instructor.

Biological Psychology

PSY 3420 3 cr. 3 hr. ▲

This course concentrates on biopsychology—the discipline of neuroscience that focuses upon understanding the relationships between the brain and behavior. We cover the physiological foundations of biopsychology such as the anatomy of the nervous system, as well as the research tools and methods used to investigate issues in biopsychology. Major topics include brain plasticity and the ways in which the brain can recover from damage and/or disease, the biological foundations of important human behaviors such as eating, sleeping and dreaming, and the biopsychology of cognitive and emotional disorders such as Alzheimers and schizophrenia.

Prerequisite: PSY 1100 or PSY 2200.

Perception

PSY 3430 3 cr. 3 hr. ▲

In this course principles related to a person's awareness of their world are studied. We specifically look at the relationship between the physical stimulus and the psychological experience that a person has. The questions we answer relate to the how and why we experience the word in the way that we do. In the process of studying sensation and perception we evaluate the nature of the physical stimulus such as light; the physiological/sensory mechanisms necessary for the receptions, transduction and transmission of the physical information that is carried to the brain as a coded nerve impulse; and how the brain interprets the physical event as a psychological experience. Topics covered include principles of psychophysics the anatomy/physiology of the visual, auditory, chemical (olfactory and gustatory) and tactile/cutaneous senses; the nature and properties of the physical stimuli that these senses respond to; and the factors that influence the interpretation of these senses such as culture, learning/past experience, motivation, expectations and personality.

Prerequisite: PSY 1100 or PSY 2200.

History and Systems of Psychology

PSY 3480 3 cr. 3 hr. ▲

This advanced course provides a consideration of contemporary psychology as seen in its historical perspective. The development of psychological concepts and theories is traced from their antecedents in philosophy and the physical sciences.

Prerequisites: junior/senior standing, PSY 2000 and PSY 2100
and one course from the following: PSY 3420, PSY 3500,
PSY 3530, PSY 3550, PSY 2810, PSY 2820.

Psychology of Learning

PSY 3500 3 cr. 3 hr. ▲

This course focuses on the theories, concepts, and principles of learning; the historical aspects of learning theory; the experimental study of the learning process; and the relationship between learning theories, concepts, and principles and their uses.

Prerequisite: PSY 1100 or PSY 2200.

Motivation

PSY 3530 3 cr. 3 hr. ▲ ●

Characteristics of motivated behavior, explanation of sources of motives, and application of theories to current research and interpersonal skills are studied in this course. Emphasis is on the biological, learned, and cognitive components of motivation. Topics include internal and external motives, the relationship of stress and motivation, the place of physiological processes in motivation, issues in motivation of others, motivation for aggressive/passive behaviors and success/failure motivation.

Prerequisite: PSY 1100 or PSY 2200.

Cognition

PSY 3550 3 cr. 3 hr. ▲

Serving as foundations for this course are the neuroscience of cognition and the historical roots upon which our present understanding of human information processing rests. Specific topic areas include attention, semantic and episodic memory, comprehension, categorization, language, problem-solving and reasoning. Artificial intelligence and the emergence of cognitive science are also considered. Methodology is emphasized throughout the course as students consider classic research studies and apply various techniques in classroom exercises.

Prerequisite: PSY 1100 or PSY 2200.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Contemporary Theories of Mind

PSY 4200 3 cr. 3hr. ▲●

The purpose of this course is to give students the opportunity to develop a deeper appreciation of the nature of psychology and problems with contemporary philosophical/psychological theories of mind. This course will focus on some of the philosophical problems of trying to develop a scientific account of mind and behavior. We will examine leading contemporary positions such as functionalism, eliminative materialism, cognitivism and biological naturalism and the strengths and shortcomings of those positions as we deal with such topics as the mind-body problem, intentionally, perception and action, and freedom of the will. At the end of this course, students will have developed a deep understanding of the philosophical underpinnings of contemporary theories of mind and behavior. This understanding will allow students to evaluate critically philosophical and psychological theories of mind, understand and question their own implicit assumptions about the nature of mind and behavior, and deepen their own understanding of human nature.

Prerequisite: PSY 3480

Teaching Practicum in Psychology

PSY 4800 6 cr. 18 hr. ▲
PSY 4803 3 cr. 9 hr. ▲

Students assist an individual faculty member in the teaching of Psychology. Responsibilities vary with the course. The Teaching Practicum is offered by invitation of faculty only.

Prerequisite: 3.0 cumulative average overall and in the major.

Practicum in Psychology

PSY 4810 3 cr. 9 hr. ▲
PSY 4820 6 cr. 18 hr. ▲

Students perform basic and applied work in Psychology. Students work with staff in areas of mutual interest.

Prerequisite: a 2.5 cumulative average in psychology and permission of the instructor.

Independent Study

PSY 4900 1-6 cr. 3-18 hr. ▲ ●

This experience is offered primarily to Psychology students of junior or senior standing, and requires approval of the professor and of the Psychology Curriculum Committee. The student must petition the Psychology Curriculum Committee the semester prior to undertaking the independent study. Independent study may take the form of special advanced reading programs, problem identification and research, assistantships, or acquisition of professional skills. Under no circumstances is independent study substituted for regularly scheduled courses. Independent study may be taken for one to six semester hours.

Prerequisite: 3.0 cumulative average in the major.

Advanced Psychology Seminar

PSY 4920 3 cr. 3 hr. ▲

In this course students pursue advanced study in their discipline. Students complete a supervised research report and meet in a weekly seminar to discuss their projects and other research topics and issues.

Prerequisite: PSY 2000, 2100, 3410, MATH 1700.

Internship in Psychology

PSY 4950 6 cr. 18 hr. ▲
PSY 4960 12 cr. 36 hr. ▲

Through an Internship the student experiences the relationship between courses in Psychology and their applications in the field. Work is carried on in settings approved by the department, faculty member, and an on-site supervisor. Internships are available in service agencies, business, and industry. Each internship presupposes specific course background. Students are encouraged to discuss Internship plans with their advisors early in their university experience. Interested students must contact the Psychology coordinator early in the prior semester of the year in which the Internship is desired. Business and industry Internships are offered only in the spring semester and some direct service Internships are available during the fall semester as well. Liability insurance is required of all students enrolled in this course.

Prerequisites: 2.5 cumulative average overall and in the major; program approval.

Directed Study

PSY 4975 1-6 cr.

Russian

Please note that Russian courses are not currently offered on a regular basis.

Russian for Beginners I

***RUSS 1000 3 cr. 3 hr. ▲**

The correct pronunciation, reading ability, and fundamentals of grammar and syntax are taught in this class. Over the semester Russian gradually becomes the working classroom and laboratory language.

Russian for Beginners II

***RUSS 1100 3 cr. 3 hr. ▲**

Intermediate Russian I

***RUSS 2000 3 cr. 3 hr. ▲**

The course involves remedial pronunciation, grammar review, conversation, and laboratory practice with Russian as the working language. Assigned readings stress USSR life, customs, and culture.

Prerequisite: two years of high school Russian or RUSS 1100 and/or permission of Instructor.

Intermediate Russian II

***RUSS 2100 3 cr. 3 hr. ▲**

The course is a continuation of RUSS 2000.

Dostoevsky and Tolstoy (in English)

RUSS 2400 3 cr. 3 hr. ▲

This course provides an in depth comparative study of the two giants of Russian 19th century literature. Contrasts in biography themes and styles are examined. The class is facilitated through lectures and readings in English, a standard length paper, a midterm, and final examination. LIT

Russian Literature in English Translation

RUSS 2500 3 cr. 3 hr. ▲

The course is a seminar on a specific topic from Russian literature, such as Soviet Literature or the modern Russian novel. Lectures and readings in English emphasize significant works in Russian and Soviet literature. A midterm and final examination and a standard length paper are required class work. The class may be repeated for credit. LIT

Russian Culture and Soviet Life (in English)

RUSS 2600 3 cr. 3 hr. ▲

The course provides an introduction to Russian life and culture as manifested in Russian geography, art, music, film, and literature. National characteristics of the Russian people and their influence on Soviet institutions are explored as well as everyday life in the Soviet Union. The course includes a significant audio-visual component.

Independent Study in Russian

RUSS 4901 1 cr. 1 hr. ▲

Independent Study in Russian

RUSS 4903 3 cr. 3 hr. ▲

The Independent Study is open to students studying the language with the permission of the supervising instructor and the Department Chairman. Meeting times and credit are arranged with approval.

Science Education

These courses are only offered through Continuing Education.

General Botany
SCED 1000
(see BIOL 1400)

Nutrition
SCED 2000
(see BIOL 1650)

Human Sexuality
SCED 2001
The biological aspects of human sexuality are discussed. The purpose of this course is to relate information rather than to advise.

Winter Botany
SCED 3000
This course is an out-of-doors study of the environment during the winter. Daily field trips to study both aquatic and terrestrial plants are used to discover how they adapt to the cold weather condition.

Common Rocks and Minerals
SCED 3270
(see GEOG 3270)

Introduction to Astronomy
SCED 4000
(see PHYS 2000)

Sociology

All elective course in Sociology require SOC 1100.

Introduction to Sociology
SOC 1100 3 cr. 3 hr. ▲ ●
The course encourages the student to critically analyze the social world, which they inhabit. Major theoretical orientations and major concepts of the discipline are reviewed. Social institutions such as family, education, and medicine are examined, and different research techniques used by sociologists are introduced. This course is a prerequisite for all other sociology courses. CTW, GDC

Cultural Anthropology
SOC 2250 3 cr. 3 hr. ▲ ●
The course introduces students to varying cultures. Attention is given to hunting and gathering, pastoral, horticultural, agricultural and industrial societies. Cultural change imposed by industrialization and technological revolution in both developing and modern societies is also analyzed and discussed. The intent of the course is to give students knowledge about the development and variability of cultures, living styles, and values, so that they are prepared to tackle elusive questions of the capabilities, limit and future of human societies.

Sociology of Aging
SOC 2300 3 cr. 3 hr. ▲
This course examines the socially defined age, the aging process and aging societies. It considers such topics as age roles, the status of the elderly across cultures and across history, and the downward mobility of the elderly in American society.

Urban Sociology
SOC 2440 3 cr. 3 hr. ▲
This course provides a survey of urbanization and the various problems associated with contemporary urban life. Computer-assisted analysis of large-scale data sets helps students explore the issues in planning development. A cross-cultural and historical approach to American urban life is emphasized.

Race and Ethnic Relations
SOC 2500 3 cr. 3 hr. ▲ ●
This course provides a comparative, historical and interdisciplinary introduction to interactions between racial and ethnic groups in the U.S. and other societies. Students explore social attitudes and consequences of racial and ethnic difference, and examine how such differences affect the lives of American people. Consideration is given to the political, economic, legal and socio-cultural experiences of various minority groups.

Peoples and Cultures of Africa
SOC 2510 3 cr. 3 hr. ▲
A survey of the peoples and cultures of Africa is the major focus of this course. This course examines the social and cultural systems of groups including the Ibo, Yoruba, Hausa-Fulani, Kpelle, Bantu Tiriki, Ganda, Jie, Rwanda, Swazi and Pastoral Somali.

Drugs and Alcohol
SOC 2520 3 cr. 3 hr. ▲ ●
In this course, students explore sociological issues revolving around drug and alcohol use and abuse in the American society. Topics of discussion include the socio-historical origins of drugs and alcohol use from a cross-cultural perspective; effects of formal organizations such as drug rehabilitation and alcoholic centers on drug users; and push factors such as family, work, and economic pressures, as they relate to chemical dependency. Also investigated are society's drug problems in terms of legal and illegal drug use; medical versus recreational use of psychoactive drugs, alcoholic beverages, and tobacco; and definitions and classifications of psychoactive substances. B

Sociology of Developing Societies
SOC 2600 3 cr. 3 hr. ▲
This course provides a survey of the socioeconomic characteristics and features of the developing societies in the context of historical and contemporary experiences of those societies. One of the primary objectives of the course is to critically analyze how the socioeconomic characteristics of the less developed societies affect and are affected by their relationships with developed Western societies and their implications for development. The role of women in development and the impact of development on women also are examined.

Sociology of Religion
SOC 2620 3 cr. 3 hr. ▲
The course emphasizes the structure and function of religious organizations, beliefs and practices. Current issues in American religion are also explored. B

Sociology of Families
SOC 2630 3 cr. 3 hr. ▲ ●
The course analyzes family structures and functions. Current trends along with practical solutions to problems of family living are discussed. B

Sociology of Organizations
***SOC 2650 3 cr. 3 hr.** ▲
The course introduces the study of work organizations as social systems. The impact of technological change and the effects of structural factors on organizations are considered. Approaches to organization diagnosis and development are discussed. B

Social Problems
SOC 2700 3 cr. 3 hr. ▲ ●
The course examines underlying dynamics and consequences of contemporary social conditions believed to be both undesirable and changeable. Strategies for resolving social problems in the environmental, economic, family, medical, political, and legal spheres are analyzed and compared. B

Medical Sociology
SOC 2720 3 cr. 3 hr. ▲
In this course, students explore the effects of stratification on health status and health care. Topics discussed in class include communication between physicians and patients of different socio-cultural backgrounds; formal organizational studies of health facilities such as hospitals, clinics, or doctors' offices; social factors and their relation to chronic illness; and the sociology of mental illness. Also investigated are the relationships between doctors and nurses, the organization and utilization of health services, the comparative examination of health systems either within a society or in a cross-cultural perspective, and the perception of illness as deviant or aberrant behavior. B

Criminology
SOC 2750 3 cr. 3 hr. ▲ ●
This course provides a survey of the field of criminology, including such topics as theories of crime; criminal statistics; homicide, rape and property crimes; white collar crimes and corporate deviance; and debates on punishment and rehabilitation. B

Juvenile Delinquency

SOC 2760 3 cr. 3 hr. ▲ ●

This course examines major sociological theories of delinquency including an analysis of empirical studies. Attention is also given to the juvenile judicial system and proposed treatment programs. B

Sociology of Education

SOC 2800 3 cr. 3 hr. ▲

This course provides an introduction to the ways sociologists think about educational goals, processes and outcomes. Students investigate a variety of historical, theoretical and substantive issues, including the development of the U.S. public education systems, the distribution of education in society, the players in the system, the influence of social factors on educational experiences and educational reform. B

Social Stratification

SOC 3000 3 cr. 3 hr. ▲ ●

The course provides a critical examination of the dominant perspectives and dimensions of social stratification, using a cross-cultural, historical and interdisciplinary framework. Particular attention is paid to the analysis of U.S. class structure and the effects of social stratification on life chances of groups. B, I, C, IDIS

Basic Skills of Social Research

SOC 3130 3 cr. 3 hr. ▲

The course emphasizes the aims and techniques of various research methods as applied to sociological study and practice. Topics covered in class include a critical examination of literature reviews, interviewing, observation, questionnaire development, data entry and quantitative computer analysis of data. The course meets LAS computer literacy for Sociology majors requirement. Q

Prerequisites: SOC 1100, MATH 1700 and sophomore status.

Application of Social Research in the Work Setting

***SOC 3140 3 cr. 3 hr.** ▲

The course provides a deeper understanding of techniques of social research than SOC 3130. The application of such techniques to consumer behavior, business and government organizations, and social agencies, is examined.

Social Theory

SOC 3160 3 cr. 3 hr. ▲

The course studies social philosophy precursors, sociological scientific theorists from Comte to Parsons and contemporary schools of thought in Sociology. The course meets LAS writing requirement for Sociology majors. B

Prerequisites: Social Research and two intermediate level Sociology courses or permission of instructor.

Law and Society

SOC 3500 3 cr. 3 hr. ▲

This course focuses on law as a practical resource. Students examine how the availability of law is distributed in society, what the law provides for those who use it, and how the law has been influenced by certain trends of use. Students study ways in which the law has been analyzed and discover the nature of legal evolution and social change.

Prerequisites: two intermediate level sociology courses or permission of instructor.

Women in American Society

SOC 3770 3 cr. 3 hr. ▲

This seminar course examines the statuses, roles, expectations and realities of women, particularly as experienced in the contemporary U.S. Patterns and differences among women's lives are explored through a variety of readings, class discussions and writing projects. (Cross listed in Women's Studies IDIS 2340) B, C, I, IDIS

Prerequisites: two intermediate level sociology courses, or permission of instructor.

Independent Study

SOC 4901 1-6 cr. 3-18 hr. ▲ ●

This course is a program of study designed for in-depth learning in a specific topic for which no regular course is available. This Independent Study is only for Sociology majors and may be taken no more than two times with permission of faculty. Independent Study requires approval of the professor and of the Sociology Curriculum Committee.

Prerequisite: 3.0 cumulative average in the major.

Internship in Sociology

SOC 4960 6 cr. 15 hr. ▲

The Internship is arranged in consultation with faculty and carried out under the auspices of an approved agency or program at the local, state or federal level. This experience is designed to develop skills in sociological practice, principles and/or research. Students are encouraged to discuss Internship plans with their advisors early in their university experience, as there are specific procedures and required courses. Liability insurance is required of all students enrolled in this course.

Prerequisite: junior or senior standing, 2.5 cumulative average in the major, program approval.

Internship in Sociology

SOC 4970 12 cr. 30 hr. ▲

See SOC 4960 for description and prerequisites.

Directed Study

SOC 4975 1-6 cr. ▲ ●

Spanish

Spanish for Beginners I

SPAN 1000 3 cr. 3 hr. ▲ ●

The correct pronunciation, reading ability and fundamentals of grammar and syntax of the Spanish language are studied. Students are taught the four language skills of listening, speaking, reading and writing. Cultural topics are integrated with these skills. Spanish gradually becomes the working classroom language. Students with a year or more of high school Spanish should register for Spanish 2000. CTW, GDCN

Spanish for Beginners II

SPAN 1100 3 cr. 3 hr. ▲ ●

The course is a continuation of SPAN 1000 or is taken with permission of the instructor. CTW, GDCN

Intermediate Spanish I

SPAN 2000 3 cr. 3 hr. ▲ ●

The course focuses on a discussion of advanced grammar points and readings dealing with Spanish life. Emphasis is on developing conversational fluency. CTW, GDCN

Prerequisite: SPAN 1000 or permission of instructor.

Intermediate Spanish II

SPAN 2100 3 cr. 3 hr. ▲ ●

The course is a continuation of SPAN 2000 or is taken by permission of the instructor. CTW, GDCN

Hispanic Culture

SPAN 2600 3 cr. 3 hr. ▲

This course is designed to provide students with a knowledge and understanding of the Hispanic world through a study of the historical and cultural development of different countries. Emphasis is placed on contemporary problems and social customs of the Hispanic population in the U.S. .

Prerequisite: SPAN 2100 or permission of instructor.

Hispanic Literature

SPAN 2700 3 cr. 3 hr. ▲

The course focuses on selected works reflecting the Hispanic heritage in contemporary Spanish and Latin American literature. LIT

Prerequisite: SPAN 2100 or permission of instructor.

Spanish Conversation and Composition

SPAN 3500 3 cr. 3 hr. ▲ ●

This course is designed to teach skills that increase the student's overall ability to read, speak and write the language. Students are expected to write compositions on topics developed in class

Prerequisite: SPAN 2100 or permission of instructor.

Practical Spanish for the Public Services Professional I

SPAN 4000 3 cr. 3 hr. ▲ ●

The course teaches practical Spanish to enable people in public services, human services, nursing, medical technology and special education to communicate with their clients. Special emphasis is placed on the cultural and psychological characteristics of Spanish speaking peoples.

Practical Spanish for the Public Services Professional II
SPAN 4100 3 cr. 3 hr. ▲

The course is a continuation of SPAN 4000 or is taken by permission of the instructor.

Independent Study in Spanish
SPAN 4901-03 1-3 cr. 1-3 hr. ▲ ●

The Independent Study is open to students in the language with the permission of the supervising instructor and the department chairman. Meeting times and credit are arranged upon approval.

Advanced Independent Study in Spanish
SPAN 4906 6 cr. 6 hr. ▲ ●

Directed Study
SPAN 4975 1-6 cr. ▲ ●

Special Education

Understanding Diversity and Disability
SPED 2210 3 cr. 3 hrs. ▲ ●

This course focuses on the critical importance of broadly defining diversity, and understanding how it impacts education. Disability is explored as an aspect of diversity in today's schools. Introducing participants to the field of special education including laws, best practices, and the responsibilities of team members. Specific disabilities are explored along with strategies for universal design and inclusion. Three-hour practicum is required

Foundations of Inclusive Education
SPED 2300 3 cr. 3 hrs.

The historical foundations of education, leading up to the creation of our current educational system are traced. Teacher candidates examine various philosophies of education and determine the aspects of these philosophies that they embrace as future teachers. The qualities of effective schools and school systems in meeting the needs of diverse learners are identified. The impact of laws and litigation on the development of our current system are traced. Teacher candidates will explore the ever-changing and evolving role of the special education teacher and reflect upon their needs as teacher candidates.

Students with Physical and Health Care Needs
SPED 2510 3 cr. 3 hrs.

Teacher candidates examine various physical and health conditions common in children with special needs. Health care plans are developed along with effective implementation strategies. Collaborative models for working with health care professionals and related service providers will be examined. Field experience is required.

Prerequisite: SPED 2150.

Language Arts: Teaching and Adapting Instruction
SPED 2522 3 cr. 3 hrs.

This course focuses on research-based approaches to teaching all children including those who are English language learners and those with disabilities. Teacher candidates develop skills in designing lessons to teach English/language arts, to students with diverse learning needs and on the Department of Elementary and Secondary Education curriculum framework.

Prerequisite: SPED 2150 or permission of instructor.

Math/Science/Social Studies for the Inclusive Classroom
SPED 2530 3 cr. 3 hrs.

This course is designed to address the basic concepts and issues in developing and modifying curriculum in mathematics, science and social studies while analyzing current research-based approaches to instruction. Teacher candidates examine various service delivery models and strategies for meeting the challenges of creating inclusive classrooms that address the educational needs of all students. The curriculum presented is based on the Massachusetts Curriculum Frameworks in each discipline.

Prerequisite: SPED 2150 or permission of instructor.

Strategies in Reading Instruction and the Assessment of Reading
SPED 2800 3 cr. 3 hrs. ▲ ●

This course explores essential topics for teaching reading to students with varying abilities and how to use assessment tools to develop effective reading instruction. Candidates develop a knowledge base concerning the skills involved in the total reading process and factors that affect the acquisition of reading skills. Components of effective instruction are a focus. A field experience is required.

For Ed/Sped majors and minors only. Prerequisite for all majors in the Education Department: Successful passage of Stage One Education Unit Review. EDUC 2630: Literacy in the PreK-8 Classroom.

Science and Social Studies for Students with and without Disabilities
SPED 2880 3 cr. 3 hrs. ▲ ●

This course is designed to address the basic concepts and skills needed for planning, developing and implementing curriculum in science and social studies for students with and without disabilities. Teacher candidates learn about a variety of instructional strategies and specialized techniques that can be implemented in the curricula within inclusive settings as well as substantially separate sites.

Prerequisites: For all majors in the Education Department: Successful Passage of stage one Education Unit Review.

Students with Emotional and Autism Spectrum Disorders
SPED 2950 2 cr. 2 hrs. ▲ ●

This course will explore emotional disturbances and autism spectrum disorders including an overview of related educational theories and interventions. Teacher candidates will examine these through a historical context, assessment approaches, developmental risk factors, and instructional interventions for multiple settings. Supportive technology and other evidence-based approaches to assist students with communication and behavior intervention will be addressed.

Prerequisites: For all majors in the Education Department: Successful Passage of stage one Education Unit Review.

Assessment of Students with Disabilities
SPED 2970 3 cr. 3 hrs. ▲ ●

This course introduces candidates to the assessment process, describes a comprehensive evaluation, and discusses legal assessment and eligibility regulations. Topics of descriptive statistics, reliability and validity, and norm sample representativeness are addressed. Candidates interpret test results and use assessment data to write Individual Educational Programs as well as evaluation reports.

Prerequisite for all majors in the Education Department: Successful passage of Stage One Education Unit Review; in addition, for Moderate majors: SPED 2800: for Severe majors, permission of instructor.

Teaching Math to Students with or without Disabilities
SPED 3400 3 cr. 3 hrs. ▲ ●

This course will examine how children develop an understanding of mathematical concepts as well as how they develop mathematical skills. Teacher candidates will learn effective methods and will explore materials, including manipulatives, math trade books, and math games, used to teach mathematics to elementary students. This course will be taught using a problem-solving approach.

Prerequisites: Candidates must have completed the mathematics course requirements for their program of study. Successful Passage of stage one Education Unit Review.

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students: I, B, L, C, IDS

Language Development and Speech

SPED 3401 3 cr. 3 hrs.

The course addresses the normal development of speech and language, and disorders associated with each of these areas of communication. Teacher candidates demonstrate a knowledge of phonological problems and language disorders as they affect academic learning. In the area of language/learning disorders, students demonstrate an understanding of delayed language and language disabilities as they relate to reading, mathematics and written language. Teacher candidates analyze second language acquisition and educational practices related to linguistic minority students. A related field experience is required.

Prerequisites: SPED 2150 and SPED 2522.

Math/Science/Social Studies for Students with Disabilities

SPED 3420 3 cr. 3 hrs.

This course is designed to demonstrate a hands-on approach to teaching math, science and social studies with a range of modifications for students with disabilities. Participants explore instructional strategies that will enable them to implement the curricula within inclusive settings as well as in substantially separate sites. Candidates also explore how to supplement traditional textbooks with hands-on investigative activities that teach to the learning styles of students. Math, science and social studies topics across the curriculum are stressed. Teacher candidates are introduced to various types of assessment techniques utilized by both classroom and special education teachers. The Department of Elementary and Secondary Education Curriculum Frameworks in the three content areas are discussed and reviewed.

Prerequisite: SPED 2150 or permission of instructor.

Reading/Learning Problems

SPED 3440 3 cr. 3 hrs

This course is designed to provide multiple perspectives and essential topics for teaching reading in the elementary school and it specifies how to assess students and how to use assessment results to provide effective reading instruction. Teacher candidates develop a knowledge base concerning the skills involved in the total reading process and factors which affect the acquisition of the reading skills and assessment procedures to plan appropriate teaching strategies. Topics covered include the nature of the reading process, the relationship between language, reading and writing, the use of assessment instruments, planning teaching strategies, examining reading resources and writing IEPs. Teacher candidates focus on developing and adapting reading material for children with various reading problems.

Prerequisites: SPED 2150, SPED 2522, SPED 3401

Behavior Management

SPED 3500 3 cr. 3 hrs.

This course prepares students to carry out a variety of behavior change support strategies in educational settings. Emphasis is on the development of a positive, problem-solving approach supporting the development of constructive learning and social behavior of children. Teacher candidates also develop an awareness of the effect of teacher behavior on the behavior of children. Taken in conjunction with the Integrated Professional Pre-Practicum/Practicum (IPP).

Prerequisite: Permission of instructor.

Program Development for Students with Severe Disabilities

SPED 3520 3. cr. 3 hrs.

This course examines effective instructional strategies for teaching students with severe disabilities and includes an overview of specific diagnoses and their implications for teaching. Particular attention is given to program development and implementation within inclusive settings. It is taken in conjunction with Student Teaching (Practicum).

Reading in Special Education

SPED 3550 3 cr. 3 hrs.

This course addresses the serious consequences of reading disabilities and related disorders, as well as the condition of dyslexia and the historical and contemporary theories on what goes wrong in the reading acquisition process in children with dyslexia. Assessment of dyslexia and related disorders will be analyzed. The course also focuses on general principles derived from research on effective techniques for working with children with dyslexia and on the application of those techniques in specific areas of the language arts: phonological awareness, phonics knowledge, automaticity and fluency in word reading, reading comprehension, spelling, handwriting and composition. It addresses the relationship between reading, writing and spelling instruction. It is taken in conjunction with the Integrated Professional Pre-Practicum/ Practicum (IPP).

Prerequisite: SPED 3440

Strategies for Secondary Students with Disabilities

SPED 3575 3 cr. 3 hrs.

This course will focus on adolescents with disabilities. Teacher candidates examine various instructional strategies to address the learning and behavioral challenges typical of adolescent learners with such conditions as learning disabilities, behavioral disorders and mild retardation. Teacher candidates explore instructional methods relating to reading, written language, mathematics, study skills and social skills for the adolescent with disabilities. Transitions and post secondary programming will address the specific needs of secondary-school students as they leave the high school environment. The course is for Special Education majors only or by permission of the instructor.

Prerequisite: 2.5 overall GPA.

The Integrated Professional Pre-Practicum/Practicum (IPP)

This is a 12 credit preparation block for licensures in moderate disabilities, severe disabilities, and elementary teacher. For the IPP curriculum, all teacher candidates take two courses: SPED 3500-Behavior Management. Those who earn an elementary license also take SPED 3550 Reading in Special Education.

IPP Pre-Practicum/Practicum Moderate Disabilities (5-12)**

SPED 3637 6 cr. 6 hrs.

Candidates spend the semester, half days four mornings a week in an elementary school in classrooms where students with disabilities are integrated or included. Teacher candidates assist in the design and implementation of lessons and adapt instruction when necessary.

IPP Pre-Practicum/Practicum: Elementary (Gr. 1-6)**

SPED 3665 3 cr. 3 hrs.

Candidates spend half the semester, half days four mornings a week in an elementary school in classrooms where students with disabilities are integrated or included. Teacher candidates assist in the design and implementation of lessons and adapt instruction when necessary.

IPP Pre-Practicum/Practicum: Moderate Disabilities (PreK-8)

SPED 3675 3 cr. 3 hrs.

Candidates spend half the semester, half days four mornings a week in the role of a special educator teaching children with moderate disabilities (PreK-8). The children are served in resource rooms, in integrated programs or in inclusive classrooms. In this role, teacher candidates are responsible for assisting in assessing children's performance, direct teaching, evaluation and providing support in general education classrooms whenever appropriate.

IPP Pre-Practicum/Practicum: Moderate Disabilities** (5-12)

SPED 3676 3 cr. 3 hrs.

Candidates spend half the semester, half days four mornings a week in the role of the secondary special educator. Teacher candidates assist in the design and implementation of lessons, adapting instruction and direct teaching.

***for teacher candidates who elect to apply for elementary certification.*

Classroom Management and Behavior Support

SPED 3720 3 cr. 3 hrs. ▲ ●

This course prepares candidates to utilize a variety of behavior support strategies. Participants develop an awareness of the effect of student variables, room design, instructional strategies, other student's and teacher behavior on the behavior of children and young adults. Emphasis is on the development of a positive problem-solving approach supporting the development of constructive learning and social behavior.

Prerequisites: For all majors in the Education Department: Successful passage of Stage One and Two Education Unit Review.

IPP Pre-Practicum/Practicum: Severe Disabilities

SPED 3765 3 cr. 3 hrs.

In this field experience, four mornings weekly, teacher candidates assume the role of a teacher of students with severe disabilities. Candidates work with individuals on functional academics and on the development of appropriate social skills. Participants assist in the development and implementation of instructional programs.

Secondary Programs for Adolescents (14-22) with Disabilities

SPED 3800 3 cr. 3 hrs.

Teacher candidates in secondary education certification programs are provided with the legal perspective of services to individuals with disabilities. Learning problems and needs of various disabilities are addressed. Strategies for modifying instruction are a major focus.

Prerequisite: 2.5 overall GPA.

Practicum: Severe Disabilities I (All Levels)

SPED 3840 6 cr. 6 hrs.

Teacher candidates complete the practicum four and one half days weekly in an educational setting under the direction of a supervising practitioner who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. Candidates teach students with severe disabilities. This course is taken in conjunction with SPED 3520.

Practicum: Severe Disabilities II (All Levels)

SPED 3845 6 cr. 6 hrs.

Teacher candidates complete the practicum four and one half days weekly in a special education setting under the direction of a mentor who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. Candidates assume the role of the teacher of students with severe disabilities. The course is taken in conjunction with SPED 3520.

Practicum: Elementary (Gr. 1-6)

SPED 3860 6 cr. 6 hrs.

Teacher candidates complete the practicum four and one half days weekly in an elementary setting under the guidance of the university supervisor and under the direction of a mentor who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. The course is taken in conjunction with SPED 4001.

Practicum: Moderate Disabilities (PreK-8)

SPED 3870 6 cr. 6 hrs.

Teacher candidates complete the practicum four and one half days weekly in an inclusive or special education pre-kindergarten to eighth grade setting under the direction of a mentor who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. The course is taken in conjunction with SPED 4001.

Practicum: Moderate Disabilities (5-12)

SPED 3875 6 cr. 6 hrs.

Teacher candidates complete the practicum four and one half days weekly in an inclusive setting or a special education setting at the middle or high school level under the direction of a supervising practitioner who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. The course is taken in conjunction with SPED 4001.

Practicum: Moderate Disabilities II (5-12)

SPED 3878 6 cr. 6 hrs.

Teacher candidates complete the practicum in an inclusive setting or a special education setting at the middle or high school level under the direction of a supervising practitioner who is certified in the area of licensure sought by the candidate and under the guidance of the university supervisor. The course is taken in conjunction with SPED 4001.

Assessment of Students with Moderate Disabilities

SPED 4001 3 cr. 3 hrs.

The course introduces teacher candidates to the assessment process, describes a comprehensive evaluation and discusses mandatory assessment regulations. The topics of descriptive statistics, reliability and validity, and norm/criterion-referenced assessments are addressed. Various types of assessment are reviewed and discussed. The focus is on interpreting test results and using assessment data to write Individual Educational Programs. Taken in conjunction with Student Teaching (Practicum).

Prerequisite: SPED 3550.

Senior Seminar

SPED 4202 1 cr. 1 hr.

This seminar has two purposes. The first is to provide candidates an opportunity to address such important topics as working constructively with parents and collaborating effectively with colleagues. The second purpose of the seminar is to provide a mixture of group planning, support and guided individual study, and reflection on practice for teacher candidates in Special Education who are enrolled in their practicum and will be completing a Teacher Work Sample as an authentic piece of research. The MA DOE Preservice Performance Assessment portfolio process will be reviewed. Candidates will use the *Renaissance Partnership for Improving Teacher Quality Teacher Work Sample* prompts and resources to design and implement a series of lessons or an approved alternative project to demonstrate impact on student learning. Candidates will integrate their knowledge of curriculum and effective instructional strategies including behavior interventions, when appropriate, with their knowledge of data collection and analysis practices to develop a *Teacher Work Sample* (TWS) that demonstrates both student and teacher candidate learning. Further details of the nature and requirements of the TWS follow below in the syllabus.

Independent Study

SPED 4900 3 cr. 3 hrs.

The Independent Study facilitates the review, development and synthesis of a problem in special education. The Independent Study is open to juniors and seniors with permission of the instructor.

Directed Study

SPED 4975 1-6 cr.

Speech

Introduction to Speech Communication

SPCH 1000 3 cr. 3 hr. ▲ ●

The class focuses on theory and practice of interpersonal and public communication, including communication theory, self-concept, perception, language, listening, non-verbal communication and public speaking. ART

Argumentation and Debate

SPCH 1100 3 cr. 3 hr. ▲

Students participate in projects that emphasize analysis, research, evidence, strategies, briefing, refutation and the delivery of debates on representative questions. ART

Small Group Communication

SPCH 1400 3 cr. 3 hr. ▲ ●

The course explores the fundamentals of group discussion in private and public settings. Emphasis is on group structure, leadership, problem solving and interpersonal relationships, including extensive practice in varied group situations. ART

Public Speaking

SPCH 1600 3 cr. 3 hr. ▲

The course fosters the development of skills and strategies employed in the preparation and presentation of the public address. Students make critical assessments of rhetorical strategies utilizing historical speeches as well as discussing contemporary rhetoric. ART

Voice and Articulation

SPCH 1700 3 cr. 3 hr. ▲

The course concentrates on the elements of vocal production and presentation with special emphasis on the study and application of phonetic theory. ART

Persuasion

SPCH 2600 3 cr. 3 hr. ▲

The course studies the causes of listener belief and action with special emphasis on the development of strategies to influence listener behavior. Special projects emphasize the use of persuasion in everyday life. ART

Rhetorical Criticism

***SPCH 2800 3 cr. 3 hr. ▲**

The class explores approaches to the rhetorical criticism of significant speeches and speech movements, past and present.

Speech Writing

SPCH 3000 3 cr. 3 hr.

The class will focus on the process of audience analysis as it affects the creation of rhetorical pieces in print and media. Special emphasis on researching, outlining and analysis.

Prerequisite: SPCH 1000.

General Semantics

SPCH 3100 3 cr. 3 hr.

The purpose of this course is to provide (1) the understanding of communication as a process, (2) the development of semantic representation—how can we represent the meaning of a sentence in order to capture the essence of truth and context? (3) enhancing the semantic composition to achieve a desired response from listeners and readers.

Technical Theater

Theatrical Design Skills

TETA 2100 3 cr. 4 hr. ▲

This is a lecture/laboratory course presenting basic problem solving skills in scenic and costume craft covering terminology and processes of stage production including integration of design elements/materials, basic drafting, stage carpentry, rigging, equipment use and shop safety.

Fundamentals of Stage Lighting Design

TETA 2300 3 cr. 4 hr. ▲

The course is a lecture/laboratory course dealing with the application of the elements of design relating to lighting for the theater and dance. Mechanics of basic electricity, color theory, instrumentation, distribution and control are discussed.

Scene Design

TETA 2400 3 cr. 4 hr. ▲

The course is a lecture/laboratory study of the historical and contemporary contribution of space and environment atmospherics to the creation of the world of the play/dance and the theater experience as a whole. Rendering, graphic media, specification writing and scenic models are addressed.

Prerequisite: TETA2100 or Permission of the Instructor.

Costume Design

TETA 2500 3 cr. 4 hr. ▲

The history of fashion silhouette is explored along with the design elements used in developing a character's costume. Students will apply historical perspective and utilize the design elements of line, texture, color and gesture in designing costumes.

Advanced Stage Lighting Design

TETA 3300 3 cr. 4 hr. ▲

The class is a lecture/laboratory study of the problems of stage lighting for the proscenium and non-proscenium stages. Students are expected to develop and apply concept and historical lighting techniques in various theater and dance genre (musical-comedy, cabaret, modern and jazz dance). Computer applied lighting will be used in a production environment.

Prerequisite: TETA 2300 or Permission of the Instructor.

Advanced Scene Design

TETA 3400 3 cr. 4 hr. ▲

Advanced Scene Design is an advanced course emphasizing approaches and techniques relating to the design, development and implementation of scenic concepts. Students will utilize approaches to research design and develop scenic concepts. Concepts will be developed, rendered, constructed and rigged to production standards.

Prerequisites: TETA 2400 or ITEC 2410.

Stage Makeup

TETA 3600 3 cr. 4 hr. ▲

This is a lecture/laboratory course investigating the principles, techniques and materials of character stage makeup and practical application. Students will apply, in a production setting, principles, techniques and materials of character stage makeup. They will identify historical justification for period makeup and apply techniques for live animation, clowning and dramatic character.

Production Implications

TETA 4000 3 cr. 4 hr. ▲

In a laboratory situation, this class is a hands-on production class. It provides the student with practical applications for building techniques, lighting, make-up, sound, props and other production needs for a realized production. This production work is possible through the Main Stage Theatre productions, student works, as well as film and video applications. Work done in this class can be used for the student's portfolio as well.

Stage Management

TETA 4100 3 cr. 4 hr. ▲

Stage Management is a lecture/laboratory study of the professional union approach to stage management and personnel mediation in stage production. Students will apply knowledge and technique related to contract and union policy in various repertory scenarios. The aspects of prompt books, blocking documentation, call-sheets, rehearsal set-up and running and calling the show will be implemented.

Prerequisite: Permission of the Instructor.

Portfolio Presentation

TETA 4200 3 cr. 4 hr. ▲

This course will provide the Technical Theatre student with practical application for presenting a professional portfolio. Practical application of common professional practices along with interviewing skills will be applied through lectures, demonstrations and projects designed to build the student's portfolio and confidence in presenting their work to the professional world.

Independent Study

TETA 4900 3 cr. 3 hr. ▲

The independent study allows students to enroll in a directed study. Upper level production responsibilities such as set, light, costume, prop, sound design and stage management fall under these responsibilities. Production responsibilities could also be in film or video productions.

Theater Internship

TETA 4950 3 cr. ▲

Theater

Stage Movement

THEA 1700 3 cr. 3 hr. ▲

This workshop-oriented course utilizes the basis techniques of movement with emphasis on developing each student's potential for effective physicalization of a character on stage. Introduction to techniques of stage combat may be taught.

Introduction to Theater

THEA 2000 3 cr. 3 hr. ▲ ●

This introductory course surveys theater with emphasis on its history, focuses, practices and major practitioners, including directors, actors and scenic designers. The focus is on historical and social contexts. L, C

Children's Theater

THEA 2100 3 cr. 3 hr. ▲

This is a hands-on course in developing theatre for young audiences. Students will learn techniques of using theater as a teaching device. Students will develop and perform short plays for young audiences on themes of mythology, social skills and history. It is a threshold course in learning how to use theatre in the classroom and also how to develop professional performance pieces targeting youth.

Stagecraft and Theater Production

THEA 2200 3 cr. 3 hr. ▲

In a laboratory situation, the student takes one selected play from initial sketches through to the finished model and plans for production, including design, set building, costuming, lighting and management.

Acting I

THEA 2700 3 cr. 3 hr. ▲ ●

This is an introduction to professional stage performance techniques. Students will learn how to build a character using techniques such as playing actions, status, physical transformation, improvisation, relaxation and script analysis. Students will perform monologues and scene work for the class and analyze and develop them. ART

History of the Theater I

THEA 2730 3 cr. 3 hr. ▲

This is the first course in a two-semester survey on the history of theater, from its roots in pre-history through the Greeks, the Middle Ages, the renaissance, and ending with Moliere. This course examines the times of Sophocles, Shakespeare and Moliere, among others, discovering how playwrights were products of their times and how their work contributed to shaping those times. The focus is on western theater, but also included are theater traditions of East Asia, India, Oceania and Africa, such as Balinese Dance Theater, Noh, Bunraku and Chinese Opera. ART, GDAN

History of the Theater II

THEA 2740 3 cr. 3 hr. ▲

This is the second course in a two-semester survey on the history of theater, from late renaissance to the present. This course examines restoration drama and works of such playwrights as Ibsen, Brecht and Beckett, among others, discovering how they were products of their times and how their work contributed to shaping those times. The focus is on western theater, but also included are theater traditions of East Asia, India, Oceania and Africa as living traditions and new voices. ART, GDAN

Acting II

THEA 2800 3 cr. 3 hr. ▲

This will be an advanced course in examining the art of the actor building on the preliminary skills learned in Acting I. Students will perform scenes from the contemporary and classical repertoire. Traditional and contemporary methods of character development will be studied and attempted. Techniques of acting Shakespeare will be learned. Audition technique will be introduced and developed.

Applied Acting

THEA 2850 3 cr. 3 hr. ▲

This course will offer the practical, on-stage experience of realizing a role in a fully mounted main stage production. Students will accomplish this through performance, maintaining an actor's journal and writing an analysis of the experience after the production is completed. This course may be taken for up to two times for credit.

Prerequisites: THEA 2700.

Acting for the Camera

THEA 3010 3 cr. 3 hr. ▲

An intensive scene study course for the advanced student actor. Scenes will be selected from extant and new film scripts and will be directed, filmed and edited y film students who are taking a companion course in the Communications department.

Prerequisite: THEA 2700.

Advanced Stage Movement

THEA 3400 3 cr. 3 hr

This course will expand and deepen the actor's understanding of how they move and physically embody characters in performance building on the vocabulary learned in Movement I. This will be accomplished through research, dance, observation and improvisation.

Prerequisites: THEA 1700.

Voice II

THEA 3500 3 cr. 3 hr

This course expands the fundamentals of Voice I that included breath, diction, relaxation, articulation and resonance. This will involve work on verse and lyric vocal education with works of Shakespeare, Restoration, Moliere and The Greeks. Techniques gained from these classical structures will be applied to various forms of character voice work, dialect and commercial voice-over techniques.

Directing the Play

THEA 4000 3 cr. 3 hr. ▲

This is an introduction to the professional stage director. Students will study the work of great directors. They will stage short productions for the class. Students will learn to analyze and develop their scene work. Students will attend performances of productions on and off campus and actively analyze them in class.

Auditioning

THEA 4500 3 cr. 3 hr

This is a course linking the work of the performance classroom and the Fitchburg State University Main Stage with the professional performing arts scene. Students will develop audition pieces and learn auditioning techniques. The will learn to write resumes and choose a headshot. They will go to professional auditions and engage in the painful process of finding work in the performing arts beyond the college setting.

Independent Study

THEA 4903 3 cr. 3 hr. ▲ ●

The Independent Study is for exceptional students excelling in scholarship and is taken upon approval of department head and advising instructor. Course of study, meetings, and credit are arranged upon approval.

Internship

THEA 4940 3 cr. ▲

Directed Study

THEA 4975 1-6 cr. ▲

Key to Course Offerings

Designates the course meets requirements for the following clusters:

AOM	Art or Music
ART	Arts
SMT	Science, Math and Technology
LAB	Lab Science
HB	Human Behavior
CTW	Citizenship in the World
GDA	Global Diversity, Arts
GDAN	Global Diversity, Non-western Arts
GDS	Global Diversity, SMT
GDSN	Global Diversity, Non-western, SMT
GDC	Global Diversity, CTW
GDCN	Global Diversity, Non-western CTW
HAF	Health and Fitness
*	This course may be offered less than once every two years.
▲	Undergraduate Day School
●	Undergraduate Evening School

Courses having a more narrow focus than those taught on a regular basis or courses being taught on an experimental basis can be taught as Topics courses. These courses will be assigned numbers based on the student level for which they are intended—first, second, third or fourth year

The following cluster designations remain in the catalog and in Banner but are not in current use for entering students. I, B, L, C, IDS

Women's Studies

Introduction to Women's Studies
IDIS 1000 3 cr. 3 hr. ▲ ●

The course presents a cross-cultural, historical and interdisciplinary introduction to topics and themes in women's experiences, including roles in the family, the workforce and public life. CTW

Women and Literature
3 cr. 3 hr. ▲

(See ENGL 3300) L

Women in Latin America
IDIS 1100 3 cr. 3 hr. ▲

The course provides a multicultural and interdisciplinary examination of the social, political and economic situation of contemporary Latin American women using autobiographies, literature and films. CTW, GDCN, IDIS

Women in Science and Technology
IDIS 2000 3 cr. 4 hr. ▲

We will study the contributions to the advancement of science and technology made by a selected group of women. For each of these women, we will examine her discipline and her contribution to the discipline, and site her in an appropriate historical and cultural setting.

Issues in Women's Health
IDIS 2340 3 cr. 3 hr. ▲ ●

The course provides a multicultural and interdisciplinary examination of women's health issues, including violence against women, sexual freedom, abortion, menopause, workplace risks and problems of poor, elderly women.

History of U.S. Women to 1870
3 cr. 3 hr. ▲

(see HIST 2490)

History of U.S Women from 1870 to the Present
3 cr. 3 hr. ▲

(see HIST 2500)

Women in European History Since 1700
3 cr. 3 hr. ▲

(see HIST 3450)

Psychology of Women
3 cr. 3 hr. ▲

(see PSY 2250)

Independent Study in Women's Studies
IDIS 4903 3 cr. 3 hr.

Women, Art, and Society
3 hr. 3 cr. ▲ ●

(see ART 3700)

Women, Music, and Society
3 hr. 3 cr. ▲ ●

(see MUSC 3900)

Internship
IDIS 3 cr.

GRADUATE DIVISION

Graduate Faculty

Fitchburg State University faculty holding terminal degrees are eligible for graduate faculty status. Faculty with advanced degrees and special recognition in their field are qualified for associate graduate faculty status. Experts from other universities or the community-at-large may serve, by invitation, as visiting lecturers.

Administration

The Office of Graduate and Continuing Education is administered by the dean of graduate and continuing education.

The Graduate Council consists of five members of the graduate faculty (selected by the Fitchburg State University Faculty Association), three administrators (appointed by the university's president) and a degree seeking graduate student. The Graduate Council makes reports and recommendations on the following matters:

The changing of course requirements within an existing graduate curricula, the addition of new courses within such curricula and the criteria to be applied in designating, as such, members of the graduate faculty. The council shall also hear appeals from graduate students to the university's graduate program.

Reports and recommendations made by the Graduate Council are transmitted to the president of the college through the academic vice president; copies are transmitted to the college faculty association's chapter president and the chairperson of each department that sponsors a graduate program. The Graduate Council shall send copies of minutes and its agenda to the All College Committee.

Graduate Education at Fitchburg State University is an exciting and challenging adventure. It offers diverse perspectives for part time and full time advanced study in a variety of professional and academic fields.

The Office of Graduate and Continuing Education is committed to engaging excellence as it promotes learning in every aspect of its educational mission—to consistently offer its students the affordable high quality evening degree programs, courses and other lifelong learning opportunities they desire, seek and need. The commitment to quality is evidenced in the dedicated cadre of faculty who are actively involved in their professional and academic fields—who bring their focussed expertise and experience to their classrooms, laboratories and studios.

Fitchburg State University's Office of Graduate and Continuing Education is proud of the contributions its faculty, graduates and other former students have made, and will continue to make, to their chosen fields.

Graduate Program Chair

Each graduate program has a graduate program chairperson who, among other things, is responsible for:

- Quality control of the graduate curriculum.
- Evaluation of course content and degree program relevancy.
- Developing and maintaining a two-year plan of course offerings.
- Developing course schedules for yearly offerings (summer, fall, winter, spring).
- Working with the Graduate Council, the dean of graduate and continuing education, and the dean of education in administration and policy matters.
- Evaluating graduate students each semester and reviewing student folders.
- Recommending and approving courses to be taken by matriculated students each semester.
- Advising and assisting in appropriate policy actions needed by graduate students such as acceptance of transfer credits and graduation review.
- Reviewing applications for admission.

Professional Education Programs

The professional education programs at Fitchburg State University are under the broad coordination of the Education Unit that includes the following licensure and degree program areas: Undergraduate and Graduate Teacher Preparation Programs, Graduate Guidance Counseling Program and Graduate Educational Leadership and Management Programs. Effective October 2003, Massachusetts teacher licensure requirements changed. Professional licensure (formerly standard certification) will require three years of employment in the role of the license, and a one year induction program (working with a mentor in the school district.)

For more detailed information about educational licensure, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit*.

Admissions

Application Requirements

To apply for admission into a graduate program, applicants are required to submit the following to the Admissions Office:

- Graduate application for admission.
- Non-refundable application fee: $25 for U.S. citizens or permanent residents, $50 for international applicants. Do not send cash. Please print applicant's first and last name on the check or money order.
- Official transcript from your baccalaureate degree granting college/university. The transcript must indicate degree received and date of graduation. The transcript must be sent directly from the institution to the Admissions Office. (Applicants to CAGS programs are not required to submit a transcript from the baccalaureate degree granting college/university but must submit a transcript from the master's degree granting institution. See below.)
- Official transcripts from all graduate programs from which you are requesting transfer credit and, if applicable, all institutions from which you have received graduate degrees. Transcripts must be sent directly from the institution to the Admissions Office. If you are applying to a CAGS program, you must submit an official transcript from your master's degree granting institution listing degree received and date of graduation.
- Standardized test scores. All master's degree programs require the official results from one of the three following tests: the Graduate Management Admissions Test (GMAT), the Graduate Record Examination (GRE) or the Miller Analogies Test (MAT). Test scores more than 5 years old are not valid. Please refer to the list below for the appropriate test. Test scores are not required for applicants to certificate or CAGS programs or for those seeking a second master's degree.
- **GMAT or GRE** is required for all applicants to the MBA program.
- **GRE** is required for all applicants to the MA or MAT in Biology, MEd in Science Education, and MS in Computer Science.
- **GRE or MAT** is required for all applicants to MA or MAT in English or history, all MEd programs (except science education), and the MS in applied communication, counseling, and nursing.
- Three letters of recommendation from individuals under whom the applicant has studied or under whose supervision they have worked in a professional capacity. Please use the Letter of Recommendation forms provided in the Graduate Application. All letters of recommendation must be mailed by the author directly to the Admissions Office.
- A professional resume.
- A personal statement. Required **only** for applicants to certificate programs in behavior analyst, forensic nursing (see specifics in program section), MS in counseling and nursing and all MEd programs with the exception of occupational education, science education, and secondary education.
- A writing sample. Required **only** for applicants to the MA in history.
- A copy of current U.S. RN license for applicants to the MS or certificate. (Applicants who reside and work outside the U.S. are not required to hold a U.S. RN Licence but instead must possess a current licence from the country they reside in and/or for which they will complete clinical coursework hours.)
- **IMPORTANT:** The following additional items are required for applicants to teacher preparation, MAT, MEd, and CAGS in education programs, as well as the MS in school guidance counseling programs. (If you are applying to a degree program that does not lead to a Massachusetts teaching license, such as the MEd in curriculum and teaching or secondary education, you are not required to submit the two items listed below.)
    - Passing scores for the Communications and Literacy subtests of the Massachusetts Tests for Educator Licensure (MTEL) are required for all applicants to graduate and certificate programs leading to initial licensure to teach in the state of Massachusetts. MTEL Communications and Literacy results are also required of all applicants to the CAGS Educational Leadership and Management: School Principal or Supervisor/Director. Note: Subject area MTEL test(s) must be completed prior to student teaching.
    - Copy of initial teaching license for applicants to programs leading to professional licensure. (If you have a valid initial teaching license from Massachusetts, you do not need to submit the Communications and Literacy subtest scores referred to above.)

The application, fee and other requested materials should be sent to:

Office of Admissions
Fitchburg State University
160 Pearl Street
Fitchburg, MA 01420-2697

Admissions Office Hours

Monday–Thursday 8 a.m.–6:30 p.m., Friday 8 a.m.–5 p.m.

Contact Us

If you have questions and would like to speak to an admissions representative, please contact (978) 665-3144 or e-mail *admissions@fitchburgstate.edu*.

Additional Application Requirements for International Students

Non U.S. citizens who do not possess a permanent visa with an alien registration number must submit the paperwork listed below in order to be considered for admission to Fitchburg State University. Students on F-1 or J-1 visas must study on a full-time basis and are not eligible for state or federal financial aid.

International Applicants

In addition to requirements listed above, applicants with international credentials must submit the following:

- International Application Supplement
- Test of English as a Foreign Language (TOEFL). This test is required of all international applicants with the exception of those who have earned a high school, associate's, bachelor's, or master's degree from an institution in the United States or applicants from Great Britain, Ireland, Australia or Canada. The minimum passing test score is 550 (paper-based test), 213 (computer-based test), and 79 (internet-based test). Official score results must be sent from the testing agency to the Admissions Office and must be dated within the past five years. For more information about the TOEFL test please visit *www.toefl.org*.
- Transcripts:
  - The school accepts only official transcripts that are signed and stamped. (If the seal on the envelope is not intact, the transcript will not be accepted)
  - All international students must have their foreign transcripts evaluated. (For evaluation of your transcripts, go to the Center for Educational Documentation Web Site: *www.cedevaluations.com*)
  - If your transcripts are not in English, they must be translated. (If you need to translate your transcripts to English, please go to the International Documentation Center Web site: *www.eurasiacom.com*)
- F-1 and J-1 applicants only. If you plan to study at Fitchburg State University under an F-1 or J-1 visa status you must submit the appropriate financial documentation with your application for admission.
- Financial Verification Forms
- Photocopies of all previous I-20s (front and back).
- Photocopies of your passport and visa, if you are currently in the United States.
- Photocopy of I-94 form (front and back), if you are currently in the United States.

Deadlines

Completed applications are reviewed on a rolling admission basis. On average, admission decisions are mailed four to six weeks after an application file is complete. Applicants who are accepted to a program after the add/drop period (traditionally, two weeks after the start of the semester) will be accepted for the subsequent semester.

Exception: International applicants must complete their applications by the deadlines listed below. The admissions office cannot guarantee that students completing applications after the published deadline will receive an admission decision in time to process visa requests. Accordingly, late applications may be deferred a semester at the discretion of the Admissions Office.

- Fall semester deadline: July 15
- Spring semester deadline: December 1

Admissions Procedures

Once all application materials have been received by the Admissions Office, the appropriate departmental committee reviews an applicant's qualifications and makes a recommendation. The admission process is completed when the dean concurs with the program's decision and approves or denies the applicant's admission. While admission decisions are prompted by a completed application, the admissions process and its outcome are based on academic department criteria.

Admissions Standards and Criteria

Applicants who meet the following minimum criteria are eligible for consideration for admission:

- A 2.8 average or better on a 4.0 scale from an accredited four-year institution
- A score greater than 50th percentile on either the Miller Analogies Test (MAT) or the Graduate Record Examination (GRE)

Some programs have additional requirements. Please refer to the relevant program descriptions in this publication.

Applicants who meet just one of the two admissions criteria but exceed in the other and who have additional evidence of academic promise are considered upon recommendation from the appropriate program chair. Students lacking prerequisites but meeting certain other admissions requirements may be admitted to certain programs under a plan of study that includes the necessary prerequisites upon written approval of program chairs.

Transfer of Credit

The college accepts a maximum of six semester hours in transfer credits from regionally accredited graduate schools. Transfer credit requests are acted upon as part of the admission process when a student submits the Request for Transfer of Graduate Credit Form, official transcripts from the appropriate institution and has been accepted into the graduate program. Transferred courses are not included in the cumulative GPA. No requests for transfer credits are accepted during the spring semester prior to a student's anticipated graduation.

The transfer of credits must be approved by the program chairperson and by the dean and meet the following criteria:

- A grade of B (3.0) or better; pass/fail grades are not transferrable
- Courses accepted in transfer must carry graduate level credit above the professional development level
- Courses must be relevant to degree specialization
- Transferred courses are only valid if taken within six years of the date of graduation from a matriculant's graduate program
- Courses previously counted toward a graduate degree or CAGS from Fitchburg State University or another accredited institution do not qualify for transfer towards a Fitchburg State University master's or CAGS program

Courses Taken at Fitchburg State Prior To Admission

Twelve semester hours of Fitchburg State University credit taken within a year prior to the student's admission may be applied to the degree program with the approval of the program chairperson. No more than six semester hours of course work at the 6000 level may be applied toward a degree program.

Academic Policies and Procedures

Advisors and Plan of Study

Graduate Advisors

Every student is assigned an advisor from the student's area of specialization. The advisor:

- Provides a vital link between the students, faculty and the dean
- Assists the degree candidate in developing a plan of study
- Approves all courses, including electives, accepted in the student's degree programs

All variances from the approved plan of study must be filed with the Registrar's Office.

Course Registration

Students must register for courses within the curriculum requirements as set in the College Catalog of the year of their matriculation. However, it is the right of the college to alter the requirements to meet statutory, educational, or professional standards.

For regularly scheduled courses, students must register before the second class meeting. Early registration is recommended for all degree seeking graduate students and graduate applicants in order to secure seats in the courses needed to proceed in degree programs. The regular registration period ends two weeks prior to the start of the semester, with late registration and late charges commencing thereafter. Please refer to the website for specific dates.

Course Load

Graduate students must register for a minimum of nine credit hours in fall and/or spring to be considered full-time. Course load for part-time status is less than nine credit hours; half-time status is five credit hours.

Graduate assistants who work 20 hours per week and are registered for at least six credit hours are considered to have full-time status. Students who are registered for at least six credits in thesis, continuation of thesis, or internship/practicum are also considered to have full-time status.

The maximum course load for any graduate student is 12 credit hours in fall, spring or the combined summer I/II sessions. The maximum course load for graduate students is three credits for the winter session. Students who want to register for credit beyond the normal load must have written approval from the dean of graduate and continuing education prior to registering. Forms are available from the Office of Graduate and Continuing Education, college website or from the academic advisors.

Student Health Insurance

Every graduate student registered for 6.75 or more credits is required by law to purchase health insurance. Students must purchase the school sponsored health plan or show proof of comparable coverage in an alternate health plan in order to enroll. For more details, see Student Health Services section in this catalog.

Special Students

A special student holds a baccalaureate degree or higher and may take classes in most graduate or certificate programs, but is not matriculated as a degree candidate. Additional policies applying to special students are as follows:

- Special students are allowed to register for a maximum of 12 credits in one discipline.
- To register for courses beyond six semester hours, special students must matriculate or obtain written approval from the appropriate graduate program chair.
- Graduate courses at the 6000 level are exempt from this policy.
- Credit from courses may apply to a degree only if prerequisites for the program are met, the student is matriculated, and approval is received from the program chair or advisor.

Waiver of Course Prerequisites

Waivers of course prerequisites, when authorized, are not to be construed either as waivers of program matriculation requirements or as waivers of credit hours required to complete a program.

Retention in a Graduate Degree Program

To maintain enrollment in a graduate program, students must:

- Earn a 2.8 average in undergraduate prerequisite course work as designated by individual graduate programs. Students must earn a 2.0 in all other undergraduate prerequisite course work outside of their major. Undergraduate prerequisite courses must be finished before graduate coursework can begin.
- Maintain a cumulative average of 3.0 in graduate coursework counted toward the degree or certificate.
- Adhere to the ethical/professional standards as defined by the profession and/or the academic department.

Probation and Academic Dismissal

- A student will be placed on probation if in any semester the student's graduate GPA falls between a 3.0 and a 2.75 cumulative average.

A student will be dismissed from the program:

- If the graduate cumulative average falls below 2.75.
- If the graduate cumulative average of a student on probation remains between 3.0 and 2.75 for two consecutive enrollment periods.
- If the student has accumulated more than six semester hours of graduate credit with a grade of 2.0 even though the graduate cumulative average remains 2.75 or higher.
- If the student has received a grade of 0.0.
- If the student's cumulative average in designated undergraduate prerequisite coursework falls below 2.8.
- If the student's cumulative average in undesignated undergraduate prerequisite coursework falls below 2.0.
- If the student violates ethical/professional standards as defined by the profession and/or the academic department.

Continued Progress Toward Degree

Matriculated students who do not register for classes for a full academic year (fall, spring, and summer) must request a leave of absence by writing to the dean of graduate and continuing education. Without an approved request, a student is dismissed from the degree program.

Readmission to Degree Program

A student who has been dismissed from a program because of failure to request a leave of absence may reapply to the program.

A student who has been dismissed from a program for academic reasons may not register for further courses at Fitchburg State University. After a minimum time period of one year, a student may apply to Fitchburg State University for readmission.

Readmission is contingent on the capability of the student to maintain at least a 3.0 GPA and on evidence that there are sufficient courses remaining in the student's program to achieve a 3.0 GPA.

Students seeking readmission to a program must reapply by completing a Petition Form. For those seeking readmission into a different degree program, the admissions process must be completed after permission from the dean is secured.

The program/policies in effect at the time of readmission are those that the student must follow.

Changing a Major or Degree Program

Graduate students may change their major or degree program as long as they can meet the requirements for their new major/degree. Frequently, changing one's major or degree increases the amount of time required to complete a graduate program. Courses taken from the previous major or degree may not count towards the new major or degree. A review of courses would be conducted by the chair of the receiving major or degree.

Graduate students must fill out a student petition form to request a change of major. They will need to obtain the signature/ approval of the Program Chair for the major they wish to enter and the appropriate Dean. If you are an education major you will need the approval of the Dean of Education. All other majors will need the approval of the Dean of Graduate and Continuing Education. To obtain a student petition form go to *www.fitchburgstate.edu/gce/StudentForms.cfm.*

Students seeking to change their degree (ex: MBA to M.Ed.) will need to formally withdraw from their degree through the Office of the Registrar and then reapply for the new program through the Office of Admissions. All application materials required for the new degree must be submitted with the exception of official transcripts previously submitted to the Office of Admissions.

Grade Substitution Policy

Students who have been dismissed from a graduate program on academic grounds and who are subsequently readmitted to a program may retake courses in which they have received a 2.0 or a 0.0 grade. If the class is repeated, the new grade will be substituted for the original grade in calculating the student's cumulative GPA. The original grade, however, will continue to appear on the transcript. Transfer courses cannot be used to substitute for courses in which a grade of 2.0 or a 0.0 has been obtained.

Grading System

4.0	95-100	A
3.7	92-94	A-
3.5	89-91	A-/B+
3.3	86-88	B+
3.0	83-85	B
2.7	80-82	B-
2.5	77-79	B-/C+
2.3	74-76	C+
2.0	71-73	C
0.0	0-70	F
W		Withdrawn
IN		Incomplete
IP		In-Progress

Grades that fall between intervals will be rounded to the higher number.

Incomplete Course

An incomplete (IN) may be awarded with the recommendation of the instructor when the student has completed 80% of the coursework but cannot complete the rest due to illness or some other serious reason. A student who has received an Incomplete in lieu of a course grade must make up the missing part or their coursework during the first four weeks of the following semester. Failure to do so will result in an automatic 0.0 for the course.

In-Progress Course

A grade of IP (In-Progress) may be awarded for thesis, practicum, internships, and clinical experience at the end of a given semester. Practicums and internships need to be completed within two semesters. The time limit for thesis is the six years allowed for the completion of a degree. If the thesis, internship and/or practicum are not completed within the allotted time then the IP grade will be changed to either an incomplete (IN) or a grade of 0.0.

Withdrawal from Courses

Withdrawal from courses may be made prior to the 11th class for regularly scheduled courses and prior to the 26th class hour for special scheduling or institute courses without academic penalty. Withdrawals may be initiated by phone by calling the Registrar's Office, or by visiting that office in the Sanders Administration Building. In either case, the student, the instructor and the advisor must receive a confirming copy of the completed course withdrawal form.

Students who withdraw by simply not attending class automatically receive a failing grade for the course.

See tuition and fees refund policy in Tuition and Fees catalog section.

Cancellation of Course

The college may cancel courses for insufficient enrollment or for other reasons deemed to be in the best interest of the university. Students who registered for a course which is canceled may transfer to another course or receive a full refund of tuition and fees.

Course Changes

Changes to courses (drop/add) must be made by the second meeting. (Class meeting time defined as 2.5 hours) No change in credit is permitted after the second class meeting. After the start of the second class meeting, the dropping of a class will be considered a withdrawal.

Audit

Students may enroll in courses on an audit (or non-credit) basis. The availability of seating in all classes is determined after all degree seeking students, program applicants and credit-seeking students have registered. Permission of the instructor and the dean is required prior to registration. Tuition and fees for audited courses are the same as those which apply to the courses when taken for academic credit. Students enrolled on an audit basis must have completed all applicable course prerequisites in order to have achieved the sufficient level of knowledge and expertise required by the course content. Students who elect the audit option may be required to complete course assignments, papers, presentations and other work. Final grades are not issued, however, courses audited will be so noted on the student's transcript. A change from credit to audit status, or from audit to credit status, must be made by the second class meeting of the course (Class meeting is defined as 2.5 hours).

Independent Study Credit Policy

Independent study allows degree candidates to step outside of course offerings and explore a specialized area of study in a challenging new environment. Students are encouraged to seek out independent study opportunities under the guidance and supervision of a professor in whose specialization they wish to study. A maximum of six independent study credits is allowed in a master's degree program. Vouchers, graduate assistant tuition waivers, tuition remissions and veterans' tuition benefits may not be applied to independent study. Before embarking on an independent study applicants must receive approval from the instructor, advisor, and the dean of graduate and continuing education by submitting a special studies form. Independent study should not be substituted for any course listed in the current catalog.

Directed Study

Directed study allows a student to carry out a non-research project or participate in an activity under the direct supervision of a faculty member. In exceptional circumstances, it can be used to offer an existing course to an individual student. All directed studies require approval of faculty sponsor, advisor, program chair and dean of graduate and continuing education. Students seeking directed study should submit a special studies form.

Thesis

Several of the graduate programs at Fitchburg State University include a thesis requirement or thesis option. Students completing a thesis must adhere to the policies and standards set forth in the thesis guidelines. Thesis guidelines can be found on the college website. Students seeking to register for thesis submit a special studies form.

Second Master's Degree

Students interested in obtaining a second master's degree from Fitchburg State University are encouraged to speak to their past or present advisor and the Graduate Program Chair of the program they are considering. In some cases a Certificate of Advanced Graduate Study (CAGS) program would be more appropriate. However, once having decided to pursue a second master's degree from Fitchburg State University, students must, in their application, include a recommendation from a professor or chair from their first master's degree from the university. Students should be aware that courses taken as part of the first master's program will not count toward a subsequent master's degree.

Graduation Requirements

Students must:

- Maintain a minimum cumulative GPA of 3.0 in the degree program with no graduate coursework below a 2.0
- Successfully complete all program requirements
- Submit completed petitions/waivers for review to the Office of Graduate and Continuing Education no later than the eighth week of the spring semester prior to anticipated graduation
- Students who are writing a thesis should refer to the thesis guidelines for specific requirements
- An application for degree or certificate must be filed with the Registrar's Office no later than September 15 for May graduation or March 1 for January graduation.

Time Limits

Graduate degree programs must be completed within six years of the date of the student's first course in the program.

Petition for Review—Graduation

Students must request a review of their folder prior to the semester in which they will complete requirements for the degree. An application for degree or certificate must be filed with the Registrar's Office no later than September 15 for May graduation or March 1 for January graduation. Obtain forms from the Registrar's Office or at *www.fitchburgstate.edu/registrar/regconf.html.*

Academic Dishonesty Policy

Academic dishonesty in all its forms, including cheating, fabrication, plagiarism and the facilitating of academic dishonesty by aiding and abetting any of the aforementioned is not tolerated at Fitchburg State University. Violators will be subject to the university's Office of Academic Affairs established judicial process.

Student Complaints Policy

Right to Confer

- A student who is dissatisfied with a grade or any aspect of instruction has a right to confer with the instructor.
- A student who is dissatisfied with a grade, any aspect of instruction, or academic decision of a graduate program bearing on their status in a graduate program, has a right to confer with their advisor.
- A student who is dissatisfied with a grade, any aspect of instruction, or academic decision of a graduate program bearing on their status in a graduate program, has a right to confer with the program's graduate program chair and department chair.
- A student seeking advice on how to proceed with a complaint about a grade, any aspect of instruction, or academic decision of a graduate program bearing on their status in a graduate program, has a right to confer with the Graduate and Continuing Education. International students also have a right to confer with the Office of International Education.

Department/Program Responsibilities

- Departments/programs will make their policies and procedures for mediating/arbitrating student complaints readily available to students as a part of a department/program handbook, or, as a separate document.
- Entering matriculated students will be apprised of the department's/program's policies and procedures for mediating/arbitrating student complaints as a part of their orientation to the program.
- Each department/program will file its policies and procedures for mediating/arbitrating student complaints with the Office of the Dean of Graduate and Continuing Education.
- Every effort should be made by the graduate program chair, in accordance with department/program policies and procedures, to informally mediate student complaints concerning academic matters.
- If informal mediation cannot be achieved, the complaint will be formally arbitrated at the department/program level in accordance with its policies and procedures for doing so. Usually, this will involve the participation of the department's Graduate Committee.
- The burden of proof rests with the student.
- Departmental/program decisions may be appealed on procedural grounds when bias is alleged.

Dean of Education or Dean of Graduate and Continuing Education Responsibilities

- A student alleging bias may contest a department's/program's decision on procedural grounds by filing a formal appeal in writing to the dean of education or dean of graduate and continuing education.
- The dean's office will conduct an investigation in a timely manner, and will forward its findings and the student's written appeal, to the Graduate Council.
- The Graduate Council will consider the appeal at its next available meeting.
- Within two weeks of the meeting, the chair of the Graduate Council will forward a written recommendation to the dean.

- The dean, then, will communicate a decision in writing to the student, the Graduate Council, and the graduate program chair.
- The final decision is made by the dean.
- If it is decided that the department/program failed to appropriately follow its procedures for mediating/arbitrating student complaints, the case will be reheard within the department with the dean serving ex officio as a non-voting member of the committee.
- If it is decided that the department/program was unbiased—that it appropriately followed its procedures for mediating/arbitrating student complaints—the department's/program's decision will stand.

Non-Academic Student Complaints

- When sexual harassment, racial discrimination or other prohibited/illegal behaviors are alleged by a student to have occurred, the student should address their complaint to the director of human resources/Affirmative Action.

Educator Licensure Programs

The Fitchburg State University's Office of Graduate and Continuing Education offers courses which may be used for licensure purposes in several different areas, including early childhood, elementary, middle school, secondary, special education, counseling, and school administration. Licensure is the function of the Commonwealth's Department of Education, not the university.

Please contact the Educator Licensure Office for information on teacher licensure programs at (978) 665-3239. Students are advised to address any question regarding licensure to:

Massachusetts Department of Elementary
and Secondary Education
350 Main Street
Malden, MA 02148-5023
(781) 338-3000
www.doe.mass.edu

Transcripts

Unofficial transcripts are available to students online. Official transcripts may also be requested online at *www.getmytranscript.com*. For each official transcript, there is a $5 fee. For more information, see *www.fitchburgstate.edu/registrar/*

GRADUATE PROGRAMS

Fitchburg State's Office of Graduate and Continuing Education schedules both undergraduate and graduate-level courses. Most programs are offered in the evenings; some may be offered on weekends, online or during the days in summer or winter session.

The Office of Graduate and Continuing Education offers programs of study leading to the following graduate degrees:

Certificate of Advanced Graduate Study (CAGS)

Educational Leadership and Management: School Principal (Initial Licensure)

Educational Leadership and Management: Supervisor/ Director (Initial Licensure)

Educational Leadership and Management (Non-Licensure)

Educational Leadership and Management: Higher Education Administration (Non-Licensure) (Currently not accepting new students.)

Educational Leadership and Management: Technology Leader (Non-Licensure)

Interdisciplinary Studies: Applied Communication

Interdisciplinary Studies: Counseling/Psychology Track

Interdisciplinary Studies: Individualized Track

Interdisciplinary Studies: Reading Specialist

Masters Degrees

Master of Arts

MA Biology

MA English

MA History

Master of Arts in Teaching

MAT in Biology (Initial Licensure)

MAT in Biology (Professional Licensure)

MAT in Earth Science (Currently not accepting new students)

MAT in English (Professional Licensure)

MAT in History (Initial Licensure)

MAT in History (Non-Licensure)

MAT in History (Professional Licensure)

MAT in Mathematics (Currently not accepting new students)

Master of Business Administration

MBA in Accounting

MBA in Human Resource Management (online option available)

MBA in Management (online option available)

Master of Education

MEd in Arts Education (Non-Licensure)

MEd in Curriculum and Teaching (Non-Licensure)

MEd in Early Childhood Education Pre-K–2 (Initial Licensure)

MEd in Early Childhood Education (Professional Licensure)

MEd in Educational Leadership and Management: School Principal—All Levels (Initial Licensure)

MEd in Educational Leadership and Management: Supervisor/Director—All Levels (Initial Licensure)

MEd in Educational Leadership and Management (Non-Licensure)

MEd in Educational Leadership and Management: Technology Leader (Non-Licensure)

MEd in Elementary Education 1-6 (Initial Licensure)

MEd in Elementary Education (Professional Licensure)

MEd in Middle School Education 5–8 (Initial Licensure-math/science and humanities)

MEd in Middle School Education (Professional Licensure-math/science and humanities)

MEd in Occupational Education (Non-Licensure)

MEd in Science Education (Non-Teaching)

MEd in Science Education (Professional Licensure)

MEd in Secondary Education (Non-Licensure)

MEd in Special Education: Guided Studies (Non-Licensure)

MEd in Special Education: Guided Studies—Moderate and Severe Disabilities (Professional Licensure)

MEd in Special Education: Reading Specialist—All Levels (Initial Licensure)

MEd in Special Education: Reading—All Levels (Non-Licensure)

MEd in Special Education: Teacher of Students with Moderate Disabilities PreK–8 (Initial Licensure)

MEd in Special Education: Teacher of Students with Moderate Disabilities 5–12 (Initial Licensure)

MEd in Special Education: Teacher of Students with Severe Disabilities—All Levels (Initial Licensure)

MEd in Special Education: Teacher of Students with Moderate Disabilities PreK–8 (Initial Licensure) plus Non-Endorsed Elementary Education (Initial Licensure)

MEd in Technology Education (Professional Licensure)

Master of Science

MS in Applied Communication: Applied Communication Studies

MS in Applied Communication: Health Communication

MS in Applied Communication: Library Media (Currently not accepting new students.)

MS in Applied Communication: Technical and Professional Writing

MS in Computer Science

MS in Counseling: Mental Health Counseling

MS in Counseling: School Counseling—Elementary (Initial Licensure) PreK-8

MS in Counseling: School Counseling—Secondary (Initial Licensure) 5-12

MS in Criminal Justice (Currently not accepting new students)

MS in Nursing (Forensic) (online program)

Graduate Level Certificate Programs

Applied Communication Studies

Behavior Analyst

Civic Engagement

Early Intervention (Currently not accepting new students)

Educational Technology

Fine Arts Director

Forensic Casework (Currently not accepting new students)

Forensic Nursing (online program)

Health Care Management

Not-for-Profit Management

Reading Specialist—All Levels (Initial Licensure)

School to Career Specialist (Currently not accepting new students)

Post-Baccalaureate Certificates

Biology (Initial Licensure, 8-12)

English (Initial Licensure, 8-12)

History (Initial Licensure, 8-12)

Math (Initial Licensure, 8-12)

Certificate of Advanced Graduate Study (CAGS)

General Philosophy

Fitchburg State University's CAGS programs are designed to meet well-defined career needs of professionals who have earned an appropriate master's degree and who wish to attain greater competency in a combination of areas of study within one of the major CAGS fields offered.

General Description of Program

Each student's CAGS program is planned under the direction of an advisor and is built on the academic background, professional position, and career goals of the student. CAGS programs consist of an integrated core curriculum, supervised professional practice, an Internship, and elective courses.

General Program of Study

Upon acceptance into the program, the student's plan of study is developed with and approved by an advisor, who works with the student over the course of study. A minimum of 30 approved graduate credits is required to complete the CAGS with the following restrictions:

- CAGS courses may not repeat work previously accomplished by the student in other graduate degree study
- CAGS credits must be earned in graduate-level courses

Details regarding the CAGS curricula, including information about required and elective courses, may be found in the specific CAGS program descriptions which follow.

CAGS—Interdisciplinary Studies

Graduate Program Co-Chairs
Harry Semerjian, EdD
Jane Fiske, DMA
Graduate Committee
Ronald Colbert, EdD
Rosemarie Giovino, EdD
Nancy Kelly, PhD
Susan Williams, PhD

Program Objectives

The CAGS in Interdisciplinary Studies Program provides opportunity for students who have completed a master's degree to continue advanced degree study in two disciplines of their choice.

Program Description

The program allows participants to step out of the confines of their master's degree and create a program of study based on their interests. This CAGS program invites students to develop their ideas and hypotheses and to acquire new understanding and knowledge in such areas as developing critical thinking skills, improving interpersonal relationships, and employing reflection for intellectual growth. By broadening the individual's background the candidate becomes an effective leader, who has the knowledge and skills to influence institutional reform. Students choose either the individualized track or the counseling/psychology track. The individualized track does not lead to licensure within those chosen fields of study.

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Interdisciplinary Studies Program, a student must submit documents as outlined in the graduate admissions section as well as:

- Official transcript of a master's degree from a regionally accredited institution
- MAT/GRE/GMAT exams are not required
- Passing scores on the Communication and Literacy portion of the Massachusetts Test for Educator Licensure (MTEL) if the student's direction is to obtain a MA Educator License.

CAGS in Interdisciplinary Studies: Applied Communication Track

Advisor

John Chetro-Szivos, PhD

Program Requirements

Students accepted into this program must have completed a Master's Degree in Communication or a closely related field of study. Students who enter this program as part of the CAGS in Interdisciplinary Studies work with an advisor from the graduate program in Applied Communication to develop a plan of study. The plan of study must be completed before the student enters their first class. The CAGS consists of an integrated core curriculum, and completion of a capstone experience. Students in this program can choose between practicum involving action research or thesis to complete the capstone requirement.

The integrated core curriculum consists of:

- Two common required courses, Advanced Communication Research Methods and Advanced Seminar in Applied Communication
- Students cannot enroll in the Advanced Seminar in Applied Communication until all other course work is completed.
- Twenty-four advanced graduate credits (7000 level and above) in Applied Communication
- A six-credit capstone experience. Students choose either practicum or thesis that cannot begin until a passing grade is earned on the comprehensive examination that is given in the Advanced Seminar in Applied Communication.
- 6000 level professional development courses may not be taken or transferred in as part of the CAGS program of study.

The students must complete 36 semester hours, which includes six semester hours of required course work, a six-hour capstone and twenty-four semester hours in Applied Communication. Before the student begins the capstone they must complete all course work and pass the comprehensive examination in the Advanced Seminar in Communication.

As part of the capstone program experience, students collaborate with faculty members from the MS in Applied Communication program. Students choosing the thesis option follow the Fitchburg State College Thesis guidelines.

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Interdisciplinary Studies Program, a student must submit documents as outlines in the graduate admissions section as well as:

- Official transcript of a master's degree from a regionally accredited institution. Master's degree must be in communications or a closely related field.
- MAT/GRE/GMAT exams are not required.

Program of Study

COMM 9105	*Advanced Communication Research Methods*	3 S.H.
COMM 9100	*Advanced Seminar in Applied Communication*	3 S.H.
	24 semester hours in advanced graduate level coursework in Applied Communication (COMM 8700 Quasselstripe is required as part of the 24 credits in this discipline)	24 S.H.
COMM 9200	*Practicum in Communication* **or**	6 S.H.
COMM 9980	*Thesis in Communication*	6 S.H.
	Total for Degree	**36 S.H.**

CAGS in Interdisciplinary Studies—Individualized Track

Advisors

Harry Semerjian, EdD
Jane Fiske, DMA

Program Requirements

Each student's CAGS program is planned and approved under the direction of a faculty member from both disciplines chosen by the student. Upon acceptance into the program, the student must submit an approved plan of study. The CAGS consists of an integrated core curriculum and a capstone experience. Students choose from two capstone options: thesis or action research project.

The integrated core curriculum consists of:

- Two common courses, Critical Inquiry in Interdisciplinary Studies and Advanced Research Methods
- Twelve advanced graduate credits (7000 level and above) in each of two declared disciplines
- A 6 credit capstone experience. Students choose either an action research project or thesis. This capstone experience allows the student to demonstrate specified competencies in the two fields studied.
- 6000 level professional development courses may *not* be taken or transferred in as part of the CAGS program of study

The student must complete 36 semester hours, which includes 6 semester hours of required core course work, a 6 semester hour capstone and 12 semester hours in each of the two academic disciplines.

As part of the capstone experience, students collaborate with faculty members from each discipline. Students choosing the thesis option follow the Fitchburg State University Thesis Guidelines.

Potential Combined Disciplines

Applied Communication, Biology, Business Administration, Computer Science Counseling, Creative Arts, Early Childhood Education, Educational Leadership and Management, Educational Technology, Elementary Education, English, History, Middle School Education, Occupational Education, Psychology, Reading Specialist, Science Education, Secondary Education, and Special Education.

Program of Study

IDIS	8000	*Critical Inquiry in Interdisciplinary Studies*	3 S.H.
IDIS	9000	*Advanced Research Methods*	3 S.H.
		Twelve semester hours of advanced graduate level course work in each declared discipline	24 S.H.
		Capstone Experience (Thesis or action research project)	6 S.H.
		Total for CAGS	**36 S.H.**

CAGS in Interdisciplinary Studies—Counseling/Psychology Track

Advisor

Richard Spencer, PhD

Program Requirements

Students choosing to study the fields of counseling and psychology as part of the CAGS in Interdisciplinary Studies work with an advisor from the graduate counseling program to develop a plan of study. Upon acceptance into the program, the student must submit an approved plan of study. The CAGS consists of an integrated core curriculum, supervised professional practice, and a capstone experience. Students choosing the disciplines of counseling and psychology choose from two capstone options: internship or thesis.

The integrated core curriculum consists of:

- Two common courses, PSY 7010 Counseling Theories and PSY 8950 Research and Program Evaluation
- Twelve advanced graduate credits (7000 level and above) in both counseling and psychology with PSY 8500 Counseling and Case Analysis required as part of the counseling discipline
- A 6 credit capstone experience. Students choose either internship or thesis. This capstone experience allows the student to demonstrate specified competencies in the two fields studied.
- 6000 level professional development courses may *not* be taken or transferred in as part of the CAGS program of study

The student must complete 36 semester hours, which includes 6 semester hours of required core course work, a 6 semester hour capstone and 12 semester hours in each of the two academic disciplines.

As part of the capstone experience, students collaborate with faculty members from the graduate counseling program. Students choosing the thesis option follow the Fitchburg State University Thesis Guidelines.

Program of Study

PSY	7010	*Counseling Theories*	3 S.H.
PSY	8950	*Research and Program Evaluation*	3 S.H.
		Twelve semester hours of advanced graduate level course work in each declared discipline (PSY 8500 Counseling Techniques and Case Analysis required as part of counseling discipline)	
		Capstone Experience (Internship or Thesis)	*6 S.H.
PSY	9075	*Internship in Counseling* or	6 S.H.
PSY	9085	*Internship in School Counseling* or	12 S.H.
PSY	9090	*Internship in Mental Health Counseling* **or**	12 S.H.
PSY	9093	*Thesis*	6 S.H.
		Total for CAGS	**36 S.H.**

**Some plans of study may require a 12 S.H. internship.*

Stages in the Program

Students in the Counseling/Psychology track must complete a comprehensive program of courses as determined by an advisor and work closely with their advisor to ensure that all requirements for graduation, licensure, etc. have been met. There are three Gates in the process toward graduation and licensure. At each Gate a student's Portfolio demonstrating competencies in Counseling/Psychology knowledge, skills, and personal and ethical behaviors are reviewed by their advisor and by the Behavioral Sciences Committee on Graduate Programs. These faculty determine readiness and qualifications to move forward in the program. The Gates are:

Gate 1—Candidacy—following the completion of two CAGS-IS Counseling/Psychology courses;

Gate 2—Admission to the Capstone Experience—following the completion of the 6 semester hours of required core course work and 12 semester hours (or in progress) in each of the two academic disciplines; and

Gate 3—Recommendation for Graduation and Licensure—following the completion of all CAGS-IS—Counseling/Psychology course work including the capstone experience.

Students who are unable to meet all requirements at any gate may not move forward and should meet with their advisor to determine whether or not to continue in the program.

CAGS in Interdisciplinary Studies: Reading Specialist Track

Advisor

TBA

Program Requirements

Students choosing to study the fields of Fundamentals of Reading Instruction and Assessment and Leadership in Literacy Instruction as part of the CAGS in Interdisciplinary Studies work with an advisor from the graduate reading specialist program to develop a plan of study. CAGS consists of an integrated core curriculum, research, supervised professional practice, and a capstone experience. Students choosing the disciplines of Fundamentals of Reading Instruction and Assessment and Leadership in Literacy Instruction complete a practicum and seminar as their capstone experience.

The integrated core curriculum consists of:

- Two common courses, Critical Inquiry in Interdisciplinary Studies and Research in Reading Education.
- Twelve advanced graduate credits (7000 level and above) in each of two declared disciplines.
- A 6 credit practicum and seminar capstone experience.

This capstone experience allows the student to demonstrate specified competencies in the two fields studied.

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Interdisciplinary Studies Program, a student must submit documents as outlined in the graduate admissions section as well as:

- Official transcript of a master's degree from a regionally accredited institution
- MAT/GRE/GMAT exams are not required
- Personal Statement

Students must complete an essay of no more than one page in response to one of the following questions/statement:

1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
3. Tell us about a significant event that involved you in a teaching or helping role.
    - Describe the situation as it occurred at the time.
    - What did you do in that particular situation?
    - How did you feel about the situation at the time you were experiencing it?
    - How do you feel about the situation now?
    - What would you change, if anything?
    - Passing score on the Communication and Literacy portion of the Massachusetts Test for Educator Licensure (MTEL).
    - Initial Licensure in Early Childhood, Elementary, Middle School or Special Education

Program of Study

Program Prerequisites

- Children's Literature or Literature of Young Adults
- Child Development (Child Growth and Development)
- Principles and Practices of Teaching Reading or equivalent
- An initial teaching license

Required Courses

IDIS	8000	*Critical Inquiry in Interdisciplinary Studies*	3 S.H.
SPED/READ	9100	*Research in Reading Education*	3 S.H.
		12 semester hours of advanced graduate level Course work in each declared discipline	24 S.H.

Discipline Area I: Fundamentals of Reading Instruction

SPED	8300	*Language Development, Differences, and Disorders (or a comparable course)*
SPED/READ	7016	*Understanding the Structure of the English Language*
SPED/READ	7017	*The Psychology of Reading*
SPED/READ	8017	*Specialized Reading Approaches*

Discipline Area II: Assessment and Leadership in Literacy Instruction

SPED/READ	8018	*Reading Disabilities and the Assessment of Reading*
SPED/READ	8019	*The Assessment of Writing Skills and Writing Disabilities*
SPED	9500	*Independent Study: Action Research*
SPED/READ	9102	*The Reading Specialist: Leadership Roles*

***Capstone Experience** **6 S.H.**

SPED/READ	9101	*Practicum: Reading Specialist*	
SPED/READ	9104	*Reading Specialist Practicum Seminar*	
		Total for CAGS	**36 S.H.**

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* *Candidates must successfully pass the Stage Review prior to enrolling in this capstone experience; the Stage Review includes a passing score on the Reading Specialist MTEL.*

Program Notes

As part of SPED/READ 9100 candidates are required to complete a literature review. In addition, CAGS candidates will be required to write a Method section corresponding to the literature review demonstrating critical thinking across areas such as Participants, Measures, Procedures, Statistical Analysis, and Research Questions/Hypotheses.

Candidates will complete an action research project as part of the Independent Study. Specifically, CAGS candidates collect and analyze educational achievement data within the schools. For example, pre-test and post-test data can be gathered for an at-risk group receiving a new intervention. A comparison group can also be assessed. Candidates will write a report including a Literature Review, Method section, Results, and Discussion. SPED/READ 9100 is a prerequisite course.

CAGS—Educational Leadership and Management: School Principal or Supervisor/Director

Graduate Program Co-Chairs
Randy Howe, EdD
Edward Philbin, CAGS
Graduate Committee
Lynne Celli-Sarasin, PhD
Charles Conroy, EdD

Program Objectives

The CAGS in Educational Leadership and Management Program prepares the student to meet the standards of Massachusetts Educator Initial Licensure as either a Supervisor/Director (P-12) or School Principal (P-6, 5-8, 9-12). The program offers courses and experience that equip school administrators with the skills and competencies necessary for becoming effective educational leaders.

About the Program

The CAGS Program is an interdepartmental program. Within this spirit, relationships between faculty members in education departments and other programs across the college have been allied.

Program Description

The CAGS program in Educational Leadership and Management is designed for students with the desire to:

- Develop competencies in managerial skills related to political arenas, personnel, fiscal affairs, acquisition of material resources, diverse publics and pupil populations and organizational change
- Strengthen, deepen and expand the knowledge base in the field of leadership and management in order to anticipate and to solve current and future problems inherent in the educational system
- Demonstrate through course work and field-based experiences the knowledge, skills and attitudes that are required to lead and manage an educational enterprise effectively and efficiently

The Program offers preparation for two Massachusetts Educator Licenses

Principal Licensure (PreK-6, 5-8, 9-12)
Supervisor/Director Licensure (P-12)

There are two initial licensure options in this program. There is one option for students who wish to seek school principal licensure and a second option for students who wish to supervise or direct programs in a school system. Successful completion of the degree and all requisite licensure requirements qualifies degree recipients for endorsement as a principal or supervisor/director.

Non-Licensure Candidates

Students who do not wish to pursue licensure plan a program of study that includes courses from each of the four competency areas and develop a 39 semester hour program that meets their professional and personal goals. Such a program should be planned with and approved by the student's advisor. Applicants to the non-licensure track do not need to submit scores from the Massachusetts Tests for Educator Licensure (MTEL).

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Educational Leadership and Management Program, candidates must submit documents as outlined in the Graduate Admission section as well as:

- Official transcript of a master's degree from a regionally accredited institution
- Documentation of a minimum of three years teaching experience
- MAT/GRE/GMAT exams are not required
- Applicants must provide documentation of a valid teacher certification/license at the initial level.
- Applicants to Option A and B must successfully complete the literacy and communication subtests of the Massachusetts Tests for Educator Licensure (MTEL) and submit passing scores as part of their application.
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit their web site at *www.fitchburgstate.edu/edunit*.

Program Requirements

A minimum of 39 graduate credits is required to complete the CAGS program. The program prepares the student for application for one of the two initial licenses: principal license (Option A) and supervisor/director (Option B).

Both programs consist of:

- A core of tightly-focused and comprehensive courses
- Students within the Massachusetts licensure sequence are involved in three broad-based pre-practicum experiences leading up to the formal practicum/internship. A supervised practicum/internship is in the form of field-based educational experience.

- The practicum/internship is 300 clock hours to be completed within one year
- Optional Thesis (EDLM 9500): A thesis topic is chosen in consultation with the student's advisor early in the last year of study, or no later than the completion of 24 semester hours of study. A student must successfully defend their thesis to a committee as described in the handbook of thesis guidelines
- Comprehensive exam covering the basic principles and concepts inherent in the field of educational leadership and management.

Program of Study

Licensure Candidate

Licensure Candidates follow a program of study under Options A or B.

Option A—School Principal Core (PreK-6, 5-8, 9-12) Licensure

Required Courses

EDLM	8000	*Community Relations*	3 S.H.
EDLM	8005	*Foundations of Educational Administration*	3 S.H.
EDLM	8010	*Human Resources and Personnel Administration*	3 S.H.
EDLM	8020	*Law for the Educator*	3 S.H.
EDLM	8030	*Public School Finance*	3 S.H.
EDLM	8040	*Curriculum Leadership and Evaluation*	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM	9000	*The Principal: Organization and Administration of the Elementary, Middle, and Secondary School*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
EDLM	9300	*Practicum in Educational Leadership and Management: School Principal: PreK-6* **or**	6 S.H.
EDLM	9310	*Practicum in Educational Leadership and Management: School Principal: 5-8* **or**	6 S.H.
EDLM	9320	*Practicum in Educational Leadership and Management: School Principal: 9-12*	6 S.H
EDLM	9600	*The Contemporary Educational Leader (Capstone)*	3 S.H.
EDLM	9999	*Comprehensive Exam*	0 S.H.
		Total for CAGS	**39 S.H.**

Option B—Supervisor/Director (PreK-12) Licensure

Required Courses

EDLM	8000	*Community Relations*	3 S.H
EDLM	8005	*Foundations of Educational Administration*	3 S.H.
EDLM	8010	*Human Resources and Personnel Administration*	3 S.H
EDLM	8020	*Law for the Educator*	3 S.H
EDLM	8030	*Public School Finance*	3 S.H
EDLM	8040	*Curriculum Leadership and Evaluation*	3 S.H
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM	9000	*The Principal: Organization and Administration of the Elementary, Middle, and Secondary Schools*	3 S.H
EDLM	9020	*Collegial Supervision*	3 S.H
EDLM	9100	*Dynamics of Planned Change*	3 S.H
EDLM	9101	*Practicum in Educational Leadership and Management: Supervisor/Director*	6 S.H.
EDLM	9600	*The Contemporary Educational Leader (Capstone)*	3 S.H.
EDLM	9999	*Comprehensive Exam*	0 S.H.
		Total for CAGS	**39 S.H.**

Non-licensure Candidates

Non-licensure candidates plan a program of study including courses from each competency area (see next page). Non-licensure candidates are required to take the comprehensive examination.

Competency Areas

Political and Fiscal Affairs

EDLM	7005	*Politics of Education*	3 S.H.
EDLM	7010	*Physical Plants and Transportation*	3 S.H.
EDLM	7040	*Collective Bargaining in Education*	3 S.H.
EDLM	8000	*Community Relations*	3 S.H.
EDLM	8020	*Law for the Educator*	3 S.H.
EDLM	8030	*Public School Finance*	3 S.H.
EDLM	9015	*Public Relations Tools for Leaders*	3 S.H.
MGMT	9320	*Labor Management*	3 S.H.

Collegial Leadership and Consultation

EDLM	7020	*Organizational Theory and Educational Planning*	3 S.H.
EDLM	7030	*Introduction to Systems Approaches in Education*	3 S.H.
EDLM	8006	*Principles of Success for Practicing Administrators: Putting Plans into Action*	3 S.H.
EDLM	8010	*Human Resources and Personnel Administration*	3 S.H.
EDLM	9000	*The Principal: Organization and Administration of Elementary, Middle, and Secondary School*	3 S.H.
EDLM	9010	*Cases and Concepts in Educational Administration*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
PSY	8200	*Principles of Guidance and Counseling*	3 S.H.

Technology for Educators

EDLM	7000	*Computer Application in Education*	3 S.H.
EDLM	7510	*Applying Computer Technology in Education*	3 S.H.
ETEC	7800	*Using the Computer as a Research Tool*	3 S.H.
ETEC	8600	*Computers and Writing*	3 S.H.
ETEC	9100	*Seminar in Educational Technology*	3 S.H.
CRAR	8146	*Arts Technology in the Classroom*	3 S.H.

Diverse Publics and Populations

EDLM	7520	*Planning Professional Development Programs*	3 S.H.
EDLM	7530	*Schools, Family, Student Partnerships in Education*	3 S.H.
EDLM	7600	*Managing Diversity*	3 S.H.
EDLM	8040	*Curriculum Leadership and Evaluation*	3 S.H.
EDLM	8800	*Administration of Special Education Programs*	3 S.H.
IDIS	9065	*Women in Contemporary Society*	3 S.H.
CRAR	8145	*Celebrating Diversity through the Arts*	3 S.H.
PSY	8100	*Childhood Trauma and It's Impact on School-Based Services*	3 S.H.

CAGS—Educational Leadership and Management: Higher Education Administration

Graduate Program Co-Chairs
Randy Howe, EdD
Edward Philbin, CAGS

Graduate Committee
Lynne Celli-Sarasin, PhD
Charles Conroy, EdD

This Track is currently under review and is not accepting new students

Program Objectives

The key objectives of the CAGS in Educational Leadership and Management: Higher Education Administration Program are to prepare and develop students with the necessary skills and competencies to administer programs in universities, colleges, and junior colleges; to teach and conduct research in educational environments of all types; and to provide leaders for higher educational institutions and its related professions.

Program Description

The CAGS Program in Educational Leadership and Management: Higher Education Administration is designed for students with the desire to:

- Assume the role of college administrators and policy makers, admissions directors, student personnel administrators, deans, directors of institutional advancement, fund raising at junior colleges, senior colleges and universities.
- Pursue executive positions in cultural, educational, business, government, public policy and human service organizations and agencies.
- Demonstrate through course work and field-based experiences the knowledge, skills and attitudes that are required to lead and manage an educational enterprise effectively and efficiently.

Cohorts and Careers

The CAGS program is deliberately limited in enrollment and to students with interests related to the program areas of concentration to assure attention to the student's professional needs. Students come from varied academic backgrounds and institutional types and usually have some experience working in a higher education setting. Each entering cohort of students share some common courses and experiences.

Most students enter administrative, analytic or policy positions. Their initial work usually is in positions reflecting their areas of concentration in settings such as:

- University, college or community college administration;
- Public policy organizations and agencies in postsecondary education;
- Postsecondary continuing education in higher educational institutions, professional association, business or government.

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Educational Leadership and Management Program, candidates must submit documents as outlined in the Graduate Admissions section as well as:

- Official transcript a of master's degree from a regionally accredited institution
- MAT/GRE/GMAT exams not required

Program Requirements

A minimum of 36 graduate credits is required to complete the CAGS program. The program curriculum consists of:

Three transition courses from the general Educational Leadership and Management track

A core of tightly-focused concentration courses intended to increase the student's knowledge about and understanding of the interrelated, societal, institutional, and personal dimensions of higher and postsecondary education.

An internship of 300 clock hours to be completed within one year allows each student to link their academic work to their own professional development needs.

Program of Study

Transition Courses

The following are the basic courses required of CAGS students in the Educational Leadership and Management Program:

EDLM	8010	*Human Resources and Personnel Administration*	3 S.H.
EDLM	8020	*Law for the Educator*	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.

Concentration Courses

EDLM	9026	*History of Higher Education*	3 S.H.
EDLM	9030	*Leadership Theory*	3 S.H.
EDLM	9040	*Organizational Issues*	3 S.H.
EDLM	9050	*College and University Teaching*	3 S.H.
EDLM	9060	*Social Context*	3 S.H.
EDLM	9070	*Strategic Planning in Higher Education*	3 S.H.
EDLM	9080	*Practicum in Higher Education Administration*	6 S.H.
		Elective Course	3 S.H.
		Total for CAGS	**36 S.H.**

CAGS—Educational Leadership and Management: Technology Leader

Graduate Program Co-Chairs

Randy Howe, EdD
Edward Philbin, CAGS

Graduate Committee

Nancy Jones, EdD
Jacquelyn Abromitis, EdD

Program Objectives

The CAGS in Educational Leadership and Management: Technology Leader Program is a non-licensure program designed to provide future leaders in technology for school systems. The technology leader degree track provides an in-depth examination of the implications of the technology revolution that has the potential to transform teaching and learning in our schools. Special emphasis is placed on the key role that technology leaders have in initiating the process of change, technology integration and faculty development. The track includes a variety of opportunity for hands-on technology-based experiences and includes critical core courses in educational leadership and management. This track is primarily offered off-campus through a collaborative partnership with the Merrimack Education Center in Chelmsford and Jon L. Jenmarc in Boston.

Program Description

The CAGS program in Educational Leadership and Management is designed for students with the desire to:

- Gain competence in the use of software applications as productivity and learning tools
- Develop perspective on their daily work by examining the theory and practice of education
- Create models that incorporate the use of technology to support effective teaching and curriculum development
- Explore the use of instructional technology to address contemporary educational issues
- Understand the implication of digital literacy for teaching and learning
- Plan for building and maintaining technology infrastructure within a school system.

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Educational Leadership and Management: Technology Leader Program, candidates must submit documents as outlined in the Graduate Admissions section as well as:

- Official transcript of master's degree from an accredited institution
- MAT/GRE/GMAT exams not required
- The MTEL exam is not required.
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

Program Requirements

A minimum of 36 graduate credits is required to complete the CAGS program. The program curriculum consists of:

Program of Study

Required Core Courses			
EDLM	8005	*Foundations of Educational Administration*	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9130	*Practicum/Internship*	6 S.H.
		Subtotal	**18 S.H.**
Required Technology Courses			
ETEC	9200	*Project in Educational Technology*	3 S.H.
EDLM	9002	*Managing Educational Technology Infrastructure*	3 S.H.
		Subtotal	**6 S.H.**
Choose Four Electives in Consultation with Advisor (Samples of Electives)			
ETEC	8700	*Creating Educational Web Sites*	3 S.H.
ETEC	7600	*Introduction to Educational Technology*	3 S.H.
ETEC	8500	*Educational Technology Ethics*	3 S.H.
ETEC	9140	*Communication and Productivity Tools for Teachers*	3 S.H.
ETEC	8600	*Computer and Writing*	3 S.H.
		Subtotal	**12 S.H.**
		Total for CAGS	**36 S.H.**

CAGS—Teacher Leadership

Graduate Program Chair
TBA

This Track is currently under review and is not accepting new students

Program Objectives

The CAGS in Teacher Leadership Program is designed to provide individuals who are desirous of playing a teacher leadership role in partnership with colleagues with the necessary collegial orientation and skills to work effectively with administrators, colleagues, family and community members to improve curriculum and instruction. Specifically, the program is designed for teachers who want to remain in the classroom, and yet, want to become competent in affecting the educational process for which they share responsibility.

Program Description

CAGS students in teacher leadership acquire an orientation of collegiality and support while becoming competent in the areas of communication, consultation, change facilitation, leadership, reflection, problem solving and evaluation. They prepare to accept the role of instructional leader and mentor as they engage in research based practices. The course of study allows students to:

- contribute to the creation of an educational environment that fosters the development of shared leadership skills
- foster an educational environment for the development of effective teaching and learning skills by assisting fellow teachers in applying the pedagogy of effective teaching
- foster the development of children's and young adults' critical thinking as a fundamental goal of instruction
- connect teaching, learning and assessment in a meaningful way
- develop values, skills and strategies for teaching children and young adults with diverse backgrounds and strengths
- Engage and encourage reflective teaching and self analysis in others
- employ exemplary coaching and mentoring supervisory competencies
- assimilate research-based practices into their existing repertoires and facilitate their inclusion in others
- acquire a repertoire of supervisory and observational skills that will support teachers in the use of varying styles of teaching for improving instruction
- create and disseminate useful resources for pre-service and in-service teachers

Admissions Standards and Criteria

To apply for enrollment in the CAGS in Teacher Leadership, a student must submit documents as outlined in the Graduate Admissions section as well as:

- Documentation of a master's degree from a regionally accredited institution
- An appropriate teaching certificate
- MAT/GRE/GMAT exams not required

Program Requirements

The Certificate of Advanced Graduate Study in Teacher Leadership requires a total of 36 semester hours as follows:

- Twenty-seven credit hours required course work in Education and Psychology
- Nine credit hours as electives

Program of Study

Required Courses

EDUC/SPED	9010	*The Adult Learner*	3 S.H.
PSY	7020	*Group Dynamics*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
EDUC/SPED	9250	*Educational Strategies*	6 S.H.
EDUC/SPED	9350	*Internship and Reflective Analysis Seminar*	6 S.H.
		Electives	9 S.H.
		Total for Certificate	**36 S.H.**

Master of Arts in Biology Master of Arts in Teaching Biology

Graduate Program Chair

Christopher Cratsley, PhD

Graduate Committee

George Babich, PhD
Margaret Hoey, PhD
Howard Thomas, PhD
Graduate Student Representative

Program Objectives

The Master of Arts (MA) in Biology Program is designed to prepare the student for a career in biology, environmental science, or for advanced study in these fields. The Master of Arts in Teaching (MAT) Biology Program consists of two tracks, preparing candidates for either initial or professional teacher licensure in Biology at the Secondary level.

Program Description

The MA in biology program offers a flexible program of study with both a thesis and non-thesis track. As students progress through the program, they will develop a strong scientific philosophy, apply sound scientific thinking to analyze biological issues in society, develop skills needed for employment within the field of biology, and expand the breadth and depth of scientific knowledge.

Both MAT in biology initial licensure and professional licensure tracks provide a balanced curriculum of biology and education courses to give graduates a strong background in content while improving their skills as teachers. Students learn to apply a wide range of biological knowledge including a bioethical perspective, expand their strategies for teaching science to all students, and develop critical thinking skills through experimentation and active learning in the classroom.

Admissions Standards and Criteria

Applicants to the MA/MAT in Biology Program must submit documents as outlined in the graduate admissions section as well as:

- An official transcript of a bachelor's degree from an accredited institution, preferably with (but not limited to) a major or minor in biology or an allied discipline and at least two semesters each of chemistry, physics and mathematics
- The official results of the Graduate Record Exam (GRE)

Notes: Applicants with inadequate preparation will be required to take prerequisite courses prior to admission. The students interested in the thesis option should contact a potential graduate advisor as part of the application process.

- Applicants to the MAT in Biology Initial Licensure program must submit a copy of their MTEL test scores showing successful completion of the Massachusetts Test for Educator Licensure: Communication and Literacy Skills Sub-test.
- Applicants to the MAT in Biology Professional Licensure program must submit a copy of their initial teaching license. Applicants without initial licensure may only be admitted to the Initial Licensure program.

  For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit their Web site at *www.fitchburgstate.edu/edunit.*

Program Requirements

The Masters of Arts in Biology Program has a thesis and non-thesis track. Each track provides the student with a solid investigative core balanced by content course work. During the first year each student completes a biology seminar during which the student's writing and communication skills are evaluated. The thesis committee (comprised of the thesis advisor and at least two other graduate faculty) helps the student design a series of courses (electives) which aid them in successfully completing the thesis.

Students in the MAT initial licensure and professional licensure tracks complete 18 credits in biology at the graduate level. All MAT students are required to take Bioethics, Seminar in Biology, and a series of biology electives. As part of the biology electives, students must take at least one course from each of the following areas chosen in consultation with their advisor: 1). ecology and evolutionary biology, 2). cellular and molecular biology. In addition, MAT candidates must complete 18 credits in education courses directly related to licensure requirements.

Once accepted, students in the initial licensure track will undergo a transcript review by the graduate program chair and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the undergraduate major in Biology. These requirements include coursework in Genetics, Ecology, Cell Biology and Biological Inquiry. Students with inadequate preparation may be required to take some courses as prerequisite courses that do not count towards the 18 credits of Biology coursework.
- Courses as identified below in the Education core for Initial License (pedagogy courses) including a total of 85 hours of pre-practicum experience.

MA Program of Study

BIOL	7400	*Bioethics*	3 S.H.
BIOL	9004	*Research in Biology*	3 S.H.
BIOL	9011	*Seminar in Biology*	3 S.H.
BIOL	9010	*Thesis in Biology*	6-9 S.H.
		**Electives*	18-27 S.H.
		Total for Degree	**36 S.H.**

**27 hours reflects a non-thesis option.*

MAT Program of Study

Initial Licensure Track

Content Core in Biology

BIOL	7400	*Bioethics*	3 S.H.
BIOL	9011	*Seminar in Biology*	3 S.H.
		Electives	12 S.H.
		Subtotal	18 S.H.

Prerequisite Education Courses for Initial Licensure
(These courses are a prerequisite and do not count toward the 36 credit degree program. They can be taken at the undergraduate or graduate level)

BIOL	2860	*Introduction to Secondary School Teaching* **or**	
SEED	7015	*Introduction to Strategies for Effective Teaching in the Academic Discipline (25 hour pre-practicum)*	3 S.H.
SPED	3800	*Secondary Programs for Adolescents with Disabilities* **or**	
SPED	7709	*The High School Environment—Challenges in Educating Students with Disabilities (10 hour pre-practicum)*	3 S.H.
		Subtotal	6 S.H.

Graduate Education Core for Initial Licensure

ENGL	8076	*Creating Literacy Experiences: Building Reading and Writing in the Content Area (25 hour pre-practicum)*	3 S.H.
SCED	9000	*Advanced Methods of Teaching Science (25 hour pre-practicum)*	3 S.H.
BIOL	8003	*Practicum*	6 S.H.
		Subtotal	12 S.H.

Graduate Courses in Education Research and Leadership

EDUC	8300	*Research in Education*	3 S.H.
BIOL	9500	*Action Research Internship*	3 S.H.
		Subtotal	6 S.H.
		Total for degree	**36 S.H.**

Professional Licensure Track

Content Core in Biology

BIOL	7400	*Bioethics*	3 S.H.
BIOL	9011	*Seminar in Biology*	3 S.H.
		Electives	12 S.H.
		Subtotal	18 S.H.

Education Core for Professional Licensure

BIOL	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
BIOL	8250	*Curriculum and Teaching*	3 S.H.
BIOL	8260	*Curriculum Design and Development*	3 S.H.
		Subtotal	9 S.H.

Graduate Courses in Education Research and Leadership*

EDUC	8300	*Research in Education*	3 S.H.
BIOL	9400	*Clinical Experience* **or**	
BIOL	9500	*Action Research Internship*	6 S.H
		Subtotal	9 S.H.
		Total for degree	**36 S.H.**

**The core experience must include a research project. The proposal is developed in the Research in Education course and conducted during the clinical experience or internship.*

Master of Arts in Teaching Earth Science

Graduate Program Chair

TBA

The MAT in Earth Science program is currently under review and not accepting new students. Contact the Dean of Education, Dr. Elaine Francis at 978-665-3239.

Program Objectives

The Master of Arts in Teaching (MAT) Earth Science Program is designed for students with Initial Licensure who are seeking professional licensure as secondary school teachers of earth science. The program produces professional teachers who are able to combine a solid base of scholarship in a specific academic discipline with effective teaching strategies based on the findings of research.

Program Description

The MAT in Earth Science Program offers graduate students rigorous scholarship within a specific academic discipline in combination with the pedagogical tools and strategies necessary for the most effective classroom teaching. The program is designed to prepare secondary school teachers and to provide models of exemplary teaching methods. Through involvement in intensive, supervised clinical experiences in the secondary school, candidates enhance their skills as educators and learn to analyze and evaluate effective teaching in their academic discipline. The program of study:

- Promotes the development of a scholar-teacher with a strong background in earth science, as well as skills in the complex process of teaching earth science
- Demonstrates the application of a wide range of scientific knowledge including theoretical, ethical, and experimental perspectives
- Suggests ways to integrate the role of women and racial and ethnic groups into traditional earth science courses
- Enables teachers to incorporate multicultural and gender-balanced perspectives into their strategies for teaching
- Develops rigorous critical thinking skills and integrates these skills into their teaching
- Inculcates a sound philosophy of teaching
- Enables students interested in earth science to pursue advanced studies
- Corresponds with the licensure requirements of the Department of Education of the Commonwealth of Massachusetts

Admissions Standards and Criteria

To apply for enrollment in the Master of Arts in Teaching Earth Science Program, students must submit documents as outlined in the graduate admissions section as well as:

- Evidence of an undergraduate major in earth science or a relevant discipline (at least 30 credits)
- Applicants to the MAT in earth science must submit a copy of their initial teaching license. Applicants without Initial Licensure may be admitted to the program through the post-baccalaureate program and will be required to complete additional coursework leading to Initial Licensure.

  For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit*.

Program Requirements

Students in the MAT program in earth science must complete:

- Fifteen credits in earth science, including at least one course in each of the following areas: geology, astronomy, meteorology, oceanography, and ecology
- Additional earth science course work to meet the categories of Standard I, if the student enters the program with inadequate preparation in earth science at the undergraduate level
- Clinical core of five courses including: Advanced Methods of Teaching at the Secondary Level, Curriculum and Technology, Curriculum Design and Development, Research in Education, and a clinical experience or Internship

Students work closely with an advisor in the academic concentration to design individual programs to further their knowledge, scholarship and subject-related teaching skills.

Program of Study

Content Core in Earth Science	18 S.H.
Core Education Courses	18 S.H.

Content Core in Earth Science

Choose six of the seven courses listed:

ESCI	7007	*Ecology*	3 S.H.
ESCI	7100	*New England's Glacial Landscape*	3 S.H.
ESCI	7200	*Observational Astronomy*	3 S.H.
ESCI	7300	*Meteorology*	3 S.H.
ESCI	7400	*Oceanography*	3 S.H.
ESCI	8100	*Environmental Geology*	3 S.H.
ESCI	9100	*Independent Study*	3 S.H.

Education Core for Professional License*

ESCI	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
ESCI	8250	*Curriculum and Technology*	3 S.H.
ESCI	8260	*Curriculum Design and Development*	3 S.H.
EDUC	8300	*Research in Education*	3 S.H.
ESCI	9400	*Clinical Experience* or	6 S.H.
ESCI	9500	*Internship*	6 S.H.
		Total for Degree	**36 S.H.**

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* *The core experience must include a research project. The proposal is developed in the Research in Education course and conducted during the clinical experience or internship.*

Students Seeking Initial Licensure

Students needing initial licensure in earth science in order to pursue the MAT in Earth Science with professional licensure may complete the post baccalaureate certificate program found in the undergraduate program section of this catalog.

Master of Arts in English
Master of Arts in Teaching English

Graduate Program Chair

Chola Chisunka, PhD

Graduate Committee

Janice Alberghene, PhD
Lisa Gim, PhD
Patrice Gray, PhD
Michael Hoberman, PhD
Nancy Kelly, PhD
Aruna Krishnamurthy, PhD
Margarite Landry, PhD
Frank Mabee
Irene Martyniuk
Joseph Moser
Thomas Murray, PhD
Benjamin Railton, PhD
Ian Williams, PhD

Program Description

The English Department offers two graduate degrees in English, the master of arts in English and the master of arts in teaching English.

The **Master of Arts in English** (MA) Program provides specialization in the study of the traditional and newer canons of literature, literary theories, and research writing. The MA is designed for students pursuing careers in literature, writing, research and community college or college teaching. It provides a background for students planning to go on to a doctorate program. A joint MA program with the History Department allows students to specialize in the history and literature of women and develop expertise in the interdisciplinary field of women's studies.

The **Master of Arts in Teaching English** (MAT) Program is designed to develop the scholar-teacher by providing a strong specialization in the traditional and newer canons of literature in English with the theories and methodologies for teaching English in the middle and secondary schools. A licensure track within this program leads to professional licensure as a teacher of English at the secondary level.

Program Objectives

The Master of Arts in English (MA) Program is designed to train students to understand and employ a variety of strategies in literature, research, writing and teaching. The master of arts program aims to:

- Promote graduate-level scholarship in the study of literature
- Encourage the development of a wide range of literary knowledge, including a global perspective
- Provide a wide range of courses, from Medieval Literature and Shakespeare's Major Plays to 20th Century Women's Fiction and Africa Through the Novel
- Polish and expand writing style and techniques, and
- Explore major literary theories and the history of English as a discipline

The history and literature of women track of the Master of Arts in English Program is designed to prepare teachers, researchers, writers and museum curators in an interdisciplinary area within the field of women's studies. It aims to provide students with the academic foundation needed to pursue doctoral work in women's history, women's literature, or women's studies.

The Master of Arts in Teaching English (MAT) Program is designed to develop the scholar-teacher by providing a strong background in English and skills for the complex process of teaching English. The master of arts in teaching English program is designed for students interested in studying the theories, methodologies, and materials for teaching English in the middle and secondary schools in addition to broadening their knowledge of literature.

The MAT program aims to:

- Bridge the gap between cutting-edge scholarship and classroom practice
- Suggest ways to integrate the voices of women and minorities into the traditional literary canon
- Enable practicing teachers to expand strategies for teaching writing through the use of process writing, collaborative writing and writing on the computer
- Enable practicing teachers to expand strategies for teaching literature through the application of current modes of criticism

MAT in English Licensure Program is designed to provide students with the necessary course work for professional licensure as teachers of English. Students not holding initial licensure take additional course work during their first semesters leading to that level of certification.

Admissions Standards and Criteria

To apply for enrollment in the Master of Arts in English or Master of Arts in Teaching English Program, a student must submit documents as outlined in the Graduate Admissions section as well as:

- An official transcript of a bachelor's degree from an accredited institution, preferably with (but not limited to) a major or minor in English
- Applicants to the MAT in English must submit a copy of their initial teaching license. Applicants without initial licensure may be admitted to the program through the post-baccalaureate program and will be required to complete additional coursework leading to initial licensure.

  For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at 978-665-3239 or visit their Web site at *www.fitchburgstate.edu/edunit*.

Note: Applicants with inadequate preparation for success in the program will be required to take undergraduate courses in English prior to admission. For those pursuing certification there may be additional prerequisite courses, depending upon previous course work in education.

MA Program of Study

Two courses in literary research and literary theory, either seven or eight 9000-level courses across a range of American, British, & World Literature, Rhetoric and Writing, and a capstone experience (Master's Thesis or Graduate English Exit Exam) are required for a total of 33 semester hours.

Required for all MA students:

ENGL	8050	*Graduate Study and Research in English*	3 S.H.
ENGL	9000	*Literary Theory: Practical Applications for Today's Readers*	3 S.H.

Seven or nine 9000-level courses across a range of American, British, and World Literature (must have advisor approval). Students choosing the thesis option will need seven 9000-level courses and students choosing the English exit exam will need nine 9000-level courses. 21 or 27 S.H.

Capstone: Students choose one of the two options. Master's Thesis Capstone. Students apply, and subject to the approval of the English Graduate Advisor and Committee, write a 6-credit master's thesis.

ENGL	9100	*Master's Thesis Research*	3 S.H.
ENGL	9200	*Master's Thesis Writing*	3 S.H.
		or	
		Graduate English Exit Exam	0 S.H.
		Total for Degree	**33 S.H.**

History and Literature of Women Program of Study

This Track is currently under review
and is not accepting new students

Required Core

ENGL	8050	*Graduate Study and Research in English*	3 S.H.
HIST	7450	*Historiography*	3 S.H.
		Seminar in the History and Literature of Women	3 S.H.

Women's History and Literature Courses

		Three courses in the History of Women (must be approved by advisor)	9 S.H.
		Four courses in the Literature of Women (must be approved by advisor)	12 S.H.
		Master's Thesis	6 S.H.
		Total for Degree	**36 S.H.**

MAT Program of Study

ENGL	8050	*Graduate Study and Research in English*	3 S.H.
ENGL	8070	*Literature in the Classroom: Readers, Texts and Teachers*	3 S.H.
ENGL	8071	*Literature for Young Adults*	3 S.H.
ENGL	8076	*Creating Literacy Experiences: Building Reading and Writing into Content Areas*	3 S.H.
		Six 9000-Level Literature Courses (must be approved by advisor)	18 S.H.
		One English Education or Literature Elective (must be approved by advisor)	3 S.H.
		Total for Degree	**33 S.H.**

MAT English Professional Licensure Program of Study

ENGL	8050	*Graduate Study and Research in English*	3 S.H.
ENGL	8070	*Literature in the Classroom*	3 S.H.
ENGL	8071	*Literature for Young Adults*	3 S.H.
ENGL	8076	*Creating Literacy Experiences: Building Reading and Writing into Content Areas*	3 S.H.
		Four 9000-Level Literature Courses (must be approved by advisor)	12 S.H.
		Subtotal	24 S.H.

Education Core for Professional Licensure

ENGL	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
ENGL	8250	*Curriculum and Technology*	3 S.H.
ENGL	8260	*Curriculum Design and Development*	3 S.H.
ENGL	9400	*Clinical Experience (400 hours)* **and** *Research Project* **or**	
ENGL	9500	*Internship (400 hours) and Research Project*	6 S.H.
		Subtotal	15 S.H.
		Total for Degree	**39 S.H.**

Students Seeking Initial Licensure

Students needing initial licensure in English in order to pursue the MAT in English with professional licensure may complete the post baccalaureate certificate program found in the undergraduate program section of this catalog. For more information regarding The Master of Arts in English and The Master of Arts in Teaching English, contact the English Graduate Program Office at (978) 665-3364 or visit their Web site at *www.fitchburgstate.edu/gradenglish.*

Master of Arts in History Master of Arts in Teaching History

Graduate Program Chairs

Laura Baker, PhD
Susan Williams, PhD

Graduate Committee

Benjamin Lieberman, PhD
Rene Reeves, PhD
Teresa Thomas, PhD

Program Objectives

The Master of Arts (MA) in History Program is designed for students pursuing careers in historical research, writing, post-secondary level teaching, and for secondary teachers pursuing advanced study in history. The MA in History offers two tracks, a thesis track and a non-thesis track. The non-thesis track requires successful completion of a comprehensive oral exit examination.

The Master of Arts in Teaching (MAT) History Program combines advanced studies in both history and the teaching of history. Track A of the MAT is a non-licensure track for teachers already licensed and seeking advanced studies in history and the teaching of history. The MAT professional licensure track (Track B) leads to professional licensure at the secondary level. The MAT initial licensure track (Track C) leads to initial licensure at the secondary level.

Program Description

The curriculum for both the MA and MAT programs aims to:

- Promote graduate-level historical scholarship
- Support and encourage the development of a wide range of historical knowledge, including a global perspective

Additionally, the MAT program strives to:

- Expand the scholar/teacher's skills in the complex process of teaching history
- Enable practicing teachers to expand their strategies for teaching history from a multicultural, gender-balanced perspective

Admissions Standards and Criteria

To apply for enrollment in either the master of arts or master of arts in teaching history programs, students must submit documents as outlined in the graduate admissions section as well as:

- An official transcript of a Bachelor's degree from a regionally accredited institution, preferably with (but not limited to) a major or minor in history; minimum 3.0 overall GPA required.
- Applicants to the MAT in history professional licensure track (Track B) must submit a copy of their initial teaching license.
- Applicants to the MAT in history initial licensure must submit passing scores on the Communication and Literacy subtests of the Massachusetts Test for Education Licensure (MTEL). Applicants who do not hold a bachelor's degree in History must also submit a passing score on the MTEL subject area subtest.

  For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit.*
- For those pursuing the MA, a writing sample must be submitted. This may include an undergraduate level term paper or a published article and should be the equivalent of at least 10 typed, doubled-spaced pages and include footnotes and a bibliography.

Note: Applicants with inadequate preparation in history may be required to take undergraduate courses in history prior to admission.

Program Requirements

The MA program requires 30 semester hours of academic work. There are 2 tracks, a thesis and non-thesis track. Non-thesis track students are required to pass a comprehensive oral exit examination. Thesis track students are also required to pass an oral thesis defense. Details regarding advancement to candidacy are available from the History Department.

The MAT program has three tracks: A, B, and C. All tracks include a content core in history. Graduate students have the option of completing (with approval of the program chairperson) 18 graduate credits of an American History Content Core to be used with either track A or B.

Track A is for teachers who are already licensed and seeking advanced studies in history and the teaching of history.

Track B is for students with initial licensure who seek Professional Licensure. In addition to the content core, students must complete an 18-credit core of education courses designed to fulfill requirements for professional licensure.

Track C is for students seeking initial licensure. In addition to the content core, students must complete an 18-credit core of education courses designed to fulfill requirements for initial licensure as well as to advance students' research and leadership skills.

Once accepted, students in the initial licensure track will undergo a transcript review by the graduate program chair and a plan of study will be developed that addresses:

- Courses missing (if applicable) in the subject that are equivalent to the requirements for the undergraduate minor in History. Students with inadequate preparation may be required to take some courses as prerequisite courses that do not count towards the 18 credits of History coursework.
- Courses that meet the National Council for Social Studies standards for social studies teacher preparation. Students with inadequate preparation in this area may be required to take some courses as prerequisite courses that do not count towards the 36 credits of required coursework.

MA Program of Study

Thesis Track

HIST	7450	*Historiography*	3 S.H.
		Area of Specialization (3 courses)	9 S.H.
One course in each of 3 areas:			
		World History	3 S.H.
		European History	3 S.H.
		U.S. History	3 S.H.
		**Cognate course*	3 S.H.
HIST	9100	*Thesis*	6 S.H.
		Total for Degree	**30 S.H.**

Non-Thesis Track

HIST	7450	*Historiography*	3 S.H.
		Area of Specialization (4 courses)	12 S.H.
One course in each of 3 areas:			
		World History	3 S.H.
		European History	3 S.H.
		U.S. History	3 S.H.
		**Cognate courses*	6 S.H.
		Comprehensive Oral Examination	0 S.H.
		Total for Degree	**30 S.H.**

MAT Program of Study

The MAT in History offers three tracks. Students in all three tracks of the MAT degree program complete an 18 credit content core in history as outlined below.

Content Core in History

HIST	7450	*Historiography*	3 S.H.
One course in each of 4 areas:			
		Non-Western History course	3 S.H.
		World History course	3 S.H.
		European course	3 S.H.
		U.S. History course	3 S.H.
		History elective	3 S.H.

Track A—Master of Arts in Teaching (non-licensure)

Content Core in History (see above)	18 S.H.
Area of Specialization	15 S.H.
Relationship Between History and Other Fields of Knowledge in the Social Sciences	3 S.H.
Total for Degree	**36 S.H.**

Track B—Master of Arts in Teaching (professional licensure)

**Content Core in History (see above)*			18 S.H.
***Education Core for professional licensure:*			
HIST	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
HIST	8250	*Curriculum and Technology*	3 S.H.
HIST	8260	*Curriculum Design and Development*	3 S.H.
EDUC	8300	*Research in Education*	3 S.H.
HIST	9550	*Action Research Internship*	6 S.H.
		Total for Degree	**36 S.H.**

**Students have the option of completing 18 credits in American History with advisor approval.*

***The education core must include a research project. The proposal is developed in the Research in Education course and conducted during the Action Research Internship.*

Track C—Master of Arts in Teaching (initial licensure)

Content core in History (see above)			18 S.H.
Education core for Initial License			
Prerequisite undergraduate education courses			
HIST	2860	*Introduction to Secondary School Teaching*	3 S.H.
SPED	3800	*Secondary Programs for Adolescents with Disabilities*	3 S.H.
Graduate courses for initial licensure			12 S.H.
ENGL	8076	*Creating Literacy Experience: Building Reading and Writing Into the Content Areas*	3 S.H.
HIST	7850	*Advanced Special Methods of Teaching History*	3 S.H.
HIST	8090	*Practicum*	6 S.H.
Graduate courses in educational research and leadership			
EDUC	8300	*Research in Education*	3 S.H.
HIST	9500	*Action Research Internship*	3 S.H.
		Total for Degree	**36 S.H.**

Master of Arts in Teaching Mathematics

Graduate Program Chair

TBA

Graduate Committee

Christine Cosgrove, PhD
Lucy Dechéne, PhD
Barry Light, EdD
Gerald Higdon, PhD
Claire McAndrew, EdD
Mark Snyder, PhD
Abdulkeni Zekeria, PhD

The MAT in mathematics program is currently under review and not accepting new students. Contact the Dean of Education, Dr. Elaine Francis at (978) 665-3239.

Students needing initial licensure in mathematics may begin their program of study now by completing the post baccalaureate certificate program found in the undergraduate section of this catalog.

Program Objectives

The Master of Arts in Teaching Mathematics Program is designed to provide sufficient content courses in mathematics and professional courses in education to educate students in advanced mathematics and to prepare candidates for professional licensure at the secondary level.

Program Description

The MAT program in mathematics aims to:

- Enhance and deepen the candidate's knowledge of mathematics
- Develop the candidate's teaching skills
- Strengthen the interactive connection between field-based experience and knowledge of theory
- Provide interdisciplinary studies
- Improve the candidate's skills to:
    a. communicate with high school students and evaluate their progress
    b. develop and evaluate curriculum
    c. continue their own professional development

Two tracks are available: Track A is a professional graduate track for those who desire advanced study in mathematics and/or who currently hold professional licensure at the Secondary Level. Track B is for students with initial licensure*. In addition to the content core, students must complete an 18-credit clinical core of education courses designed to prepare the student for professional licensure at the secondary level. Each semester various content courses will be offered. Students should check current class listing for course selection.

Admission Standards and Criteria

To apply for enrollment in either the Master of Arts or Master of Arts in Teaching Mathematics Program, students must submit documents as outlined in the graduate admissions section as well as:

- An official transcript of a baccalaureate degree from a regionally accredited institution, preferably with (but not limited to) a major in mathematics.
- The official results of the Graduate Record Exam (GRE).
- Applicants with inadequate preparation in mathematics will be required to take undergraduate courses in mathematics prior to admission. For those pursuing certification there may be additional prerequisite courses depending upon what previous coursework in education has been completed.
- Applicants to the MAT in mathematics must submit a copy of their initial teaching license. Applicants without initial licensure may be admitted to the program through the post-baccalaureate program and will be required to complete additional coursework leading to initial licensure.

    For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit*.

Program Requirements

All students must complete a core of at least one content mathematics course in each of the following three groupings:

1. Algebra
   Number Theory
2. Analysis
   Probability
3. Geometry
   Mathematical Modeling
   Discrete Mathematics

Additionally, all students must satisfactorily pass two approved comprehensive examinations. One exam must cover two of the above three content course groupings. The other may be in mathematics education.

Students in Track A, the professional graduate track, must complete 21 semester hours of content courses in mathematics and 9 semester hours of electives.

Students in Track B, the clinical track, must complete 18 semester hours of content courses in mathematics and a 18-credit clinical core of education courses directly related to certification requirements.

Program of Study

Track A

Content Courses in Mathematics	*21 S.H.*
Approved Electives	*6 S.H.*
Electives in Education	*3 S.H.*
Total Credits	**30 S.H.**

Track B

	Content Courses in Mathematics	*18 S.H.*

Education Core for Professional License**

MATH 8000	*Advanced Methods of Teaching at the Secondary Level*	*3 S.H.*
MATH 8250	*Curriculum and Technology*	*3 S.H.*
MATH 8260	*Curriculum Design and Development*	*3 S.H.*
EDUC 8300	*Research in Education*	*3 S.H.*
MATH 9400	*Clinical Experience* **or**	*6 S.H.*
MATH 9500	*Internship*	*6 S.H.*
	Total Credits	**36 S.H.**

***The core experience must include a research project. The proposal is developed in the Research in Education course and conducted during the clinical experience or internship.*

Students Seeking Initial Licensure

Students needing initial licensure in mathematics in order to pursue the MAT in mathematics with professional licensure may complete the post baccalaureate certificate program found in the undergraduate program section of this catalog.

MBA—Master of Business Administration

Graduate Program Chair
Joseph McAloon, MBA

Graduate Committee
Diane Caggiano, JD
Beverley Hollingsworth, PhD
Kwahng Kim, PhD
Michael Leamy, EdD
James T. Noonan, PhD
Louis J. Zivic, EdD
Charles Wellens, MBA
Christine Shane, PhD

Program Objectives

The Master of Business Administration (MBA) Program is designed to provide students with the skills and knowledge necessary to become leaders in business and in administration. It seeks to develop decision makers with strong analytical skills who are socially responsible, sensitive to cultural diversity and aware of the broadening world market. The MBA Program is also offered as a fully online program.

Program Description

The MBA program is comprised of three course clusters, including 24 credits of a foundation level core and 30 credits from an advanced core and specialized tracks.

To complete the degree students must fulfill the following:

Eight courses (24 credits) at the foundation level

The foundation courses provide essential background knowledge regarding accounting, economics, management, marketing, finance, quantitative analysis, business law and data processing. It is assumed that most students entering the program with an undergraduate degree in business administration will be able to waive these foundation courses. Life experience credit may be used for waiver of some of the foundation courses based on evaluation and recommendation of a faculty committee.

Six courses (18 credits) in advanced core

In the advanced core students acquire advanced skills and knowledge regarding current business and management practice and methodology.

Three specialized tracks

The specialized tracks are in the fields of accounting, human resources management and management. Each track includes three specialized courses and one free elective.

The Online MBA Program

The Online MBA Program is designed to provide the students with the same skills, knowledge and overall experience as students in the traditional program. The online version employs a cohort group model and is accelerated so that it may be completed in a seventeen month time frame. The Online MBA currently offers the Management and Human Resource Management tracks.

Admissions Standards and Criteria

We are accredited by The International Assembly for Collegiate Business Education (IACBE). To enroll in the Master of Business Administration Program, a student must submit documents as outlined in the graduate admissions section as well as:

- The official results of the Graduate Management Admissions Test (GMAT)
- The GRE may be substituted for the GMAT with permission of program chair

In addition to the university's standard admission requirements for Master's degree programs, all applicants are expected to have:

- An undergraduate GPA not less than 2.8
- A GMAT score of not less than 400
- TOEFL scores for natives of non-English speaking countries
- A formula score of not less than 1000

  Formula=(200 X undergraduate gpa) + GMAT score

Applicants whose formula score is less than 1000 but whose record exhibits promise in other ways may be admitted. No more than 10 to 20 percent of MBA candidates are accepted under these circumstances.

Program of Study

Foundation Core Courses—Undergraduate

(applies to all tracks – waived with undergraduate degree in business)

BSAD	1700	*Introduction to Computer Information Systems for Business (or equiv.)*	3 S.H.
BSAD	3200	*Principles of Management*	3 S.H.
BSAD	3300	*Fundamentals of Marketing*	3 S.H.
BSAD	3400	*Basic Finance*	3 S.H.
BSAD	3500	*Business Law I*	3 S.H.
ECON	1200	*Principles of Economics, Micro*	3 S.H.

or

Foundation Core Courses—Graduate

(Waived with Undergraduate Degree in Business)

MGMT	7001	**Quantitative Methods for Business*	3 S.H.
MGMT	7002	***Accounting for Graduate Students*	3 S.H.
MGMT	7003	****Foundations of Finance/Economics*	3 S.H.
MGMT	7004	*****Foundations of Marketing/Management*	3 S.H.
		Subtotal	24 S.H.

**MGMT 7001 Quantitative Methods for Business can be replaced by Math 2200 (Calculus for Business) and Math 1800 (Business Statistics). Approval done on a case-by-case basis.*

***MGMT 7002 Accounting for Graduate Students may be replaced by BSAD 2010 (Introduction to Financial Reporting) and BSAD 2020 (Introduction to Managerial accounting) or equivalent. Approval done on a case-by-case basis.*

****MGMT 7003 Foundations of Finance/Economics may be replaced by BSAD 3400 or ECON 1200.*

*****MGMT 7004 Foundations of Marketing/Management may be replaced by BSAD 3200 or BSAD 3300.*

Advanced Core Requirements/Applications

(applies to all tracks)

MGMT 9040	*Organizational Behavior & Development*	3 S.H.
MGMT 9060	*Management Information Systems*	3 S.H.
MGMT 9160	*Marketing Management*	3 S.H.
MGMT 9170	*Corporate Finance*	3 S.H.
MGMT 9180	*Accounting Practices for Managers* **or**	
MGMT 9030	*Accounting Theory (for Accounting Track students only)*	3 S.H.
MGMT 9500	*Strategic Management*	3 S.H.
	Subtotal	18 S.H.

Track Electives

The specialization in accounting, human resources management or management include a free elective. To satisfy the requirement, the student chooses a course from any of the MBA course offerings or, with permission of the Graduate Program Chair, a course from another graduate discipline. Selected topics courses may be counted as directed electives only with prior approval of the graduate program chair.

Specialized Tracks

Accounting Track

A. Advanced Core Courses		18 S.H.
B. Required Accounting Track Courses*		
MGMT 9032	*Advanced Financial Accounting Issues*	3 S.H.
MGMT 9034	*Selected Topics in Advanced Managerial Accounting*	3 S.H.
MGMT 9036	*Accounting Information Systems*	3 S.H.
	Subtotal	9 S.H.
D. Approved Elective		3 S.H.
	Total for Degree	**30 S.H.**

Note: Students electing the Accounting Track must either be graduates of approved undergraduate Accounting programs or have at least 24 undergraduate credit hours beyond Basic Accounting with the approval of the program director.

Human Resources Management Track

A. Advanced Core Courses		18 S.H.
B. Required Human Resources Management Track Courses		
MGMT 9050	*The Human Resources Function and the Manager*	3 S.H.
MGMT 9070	*Legal Issues in Human Resources Management*	3 S.H.
MGMT 9450	*Selected Topics in Management (approved by chair for HR relevance)*	3 S.H.
	Subtotal	9 S.H.
C. Approved Elective		3 S.H.
	Total for Degree	**30 S.H.**

Management Track

A. Advanced Core Courses		18 S.H.
B. Required Management Track Courses		
MGMT 9050	*The Human Resource Function and the Manager*	3 S.H.
MGMT 9080	*Management Theory and Process*	3 S.H.
C. Directed Elective Courses Choose at least one:		
MGMT 9002	*Management of the Global Environment*	3 S.H.
MGMT 9008	*Quality Management Theory*	3 S.H.
MGMT 9020	*Economic Theory and Managerial Decision Making*	3 S.H.
MGMT 9100	*Business and Society*	3 S.H.
MGMT 9130	*Legal Environment of Business*	3 S.H.
MGMT 9330	*Marketing Communications*	
MGMT 9450	*Selected Topics in Management*	3 S.H.
MGMT 9600	*E-Commerce*	3 S.H.
MGMT 9700	**Internship in Management*	
	Subtotal	9 S.H.
D. Approved Elective		3 S.H.
	Total for Degre	**30 S.H.**

**MGMT 9700 Internship in Management may be repeated but counted only once towards the student's program of study.*

Note: A maximum of two course substitutions may be applied towards a student's program of study with approval of the Graduate Program Chair.

Master of Education Programs

MEd—Arts Education

Graduate Program Chair

Harry Semerjian, EdD

Graduate Committee

Michele Caniato, DMA	*Robin Dinda, DMA*
Jane Fiske, DMA	*Petri Flint, MFA*
Susan Wadsworth, MFA	

Program Objectives

The program of study for the Master of Education in Arts Education Program is a non-licensure degree program designed to provide creative experiences in the arts for teachers and community workers and enables them to transfer the creative process to their professional situations.

Program Description

The curriculum for the Master of Education in Arts Education integrates the arts and the creative process in three course areas, including core courses in arts education and curriculum, distribution courses in special topics, and electives, which may include independent study or field experience.

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Arts Education program, students must submit documents as outlined in the Graduate Admissions section as well as:

- An official transcript of a bachelor's degree from a regionally accredited institution preferably with (but not limited to) a major or minor in an art area such as language arts, visual arts, music, physical education or dance
- A personal statement outlining the student's rationale for entering the program

Program of Study

Core Courses

**CRAR 9051*	*Supervising, Directing and Leading in Arts Education I*	*3 S.H.*
**CRAR 9052*	*Supervising, Directing and Leading in Arts Education II*	*3 S.H.*
CRAR 9060	*Creative Arts Research*	*3 S.H.*
CRAR 9070	*Creative Arts Curriculum Development and Applications*	*3 S.H.*
CRAR 9090	*Arts Presentation*	*3 S.H.*
	Subtotal	*15 S.H.*

Distribution Courses

Students choose five courses from any of the six distribution areas.

Integrated arts
Music
Movement
Language arts/drama
Visual arts
Crafts (Available only through Worcester Center for Crafts)

Subtotal	*15 S.H.*

Additional Courses

A minimum of three semester hours must be fulfilled in one of the following ways:

Courses from any of the above distribution areas
Credits transferred into the program
Courses related to graduate areas
Independent Study
Field Experiences in Creative Arts

Subtotal	*3 S.H.*
Total for Degree	**33 S.H.**

See also Fine Arts Director Certificate Program.

MEd—Curriculum and Teaching

Graduate Program Chair

Elaine Francis, EdD

Graduate Committee

Pamela Hill, EdD	*Nancy Murry, EdD*
Anne Howard, PhD	*Edward Philbin, CAGS*
Randy Howe, EdD	*Shari Stokes, EdD*

Program Objectives

The MEd in Curriculum and Teaching is a non-licensure degree program designed for individuals who wish to pursue advanced levels of reflection, knowledge, skill and professionalism in the field of education.

Program Description

It is intended that the individual will continue to develop as a reflective, student-centered individual who is able to effectively articulate and apply educational theory and research in the field of education.

To this end, graduate students will:

- Reflect on historical, philosophical and theoretical perspectives related to current educational issues and practices
- Examine empirical research and engage in the scientific reasoning process
- Acquire and apply advanced knowledge, educational theory and research in the design and implementation of appropriate educational curricula, practices and environments
- Acquire knowledge of how individuals develop as thinkers and learners
- Acquire and apply advanced knowledge of emerging, research-based, educational principles in the planning, implementation and evaluation of the educational environment and instructional programs
- Become more aware of societal demands on the curriculum as they relate to meeting the diverse needs of individuals
- Investigate educational partnership models which effectively focus on family strengths, circumstances and cultural experiences
- Demonstrate effective strategies and techniques for working with diverse individuals in integrated learning environments

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* *Course may be substituted dependant on student plan of study with advisor approval*

- Examine the shared values, ethics, purposes and commitments which bond the educational community
- Acquire an orientation of collegiality and support, whereby contributions can be made to the future improvement of education through the construction of knowledge and its application
- Be prepared to pursue further graduate studies

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Curriculum and Teaching Program, students must submit documents as outlined in the graduate admission section. Applicants to this program are not required to submit scores for the Massachusetts Test for Educator Licensure (MTEL) or a copy of a teaching license.

- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

Program of Study

	A course in curriculum design/development	3 S.H.
	A course in contemporary issues in education	3 S.H.
EDUC 8300	*Research in Education*	3 S.H.
	Thesis, Internship or Action Research	3 S.H.
Select two of the following in consultation with advisor:		
	A course in educational technology	
	A course in special education	
	A course on literacy development relevant to the license under which the student is teaching	6 S.H.
*Focus area courses		
	Content strand	9 S.H.
	Pedagogy strand	9 S.H.
	Total for Degree	**36 S.H.**

Focus Areas

In conjunction with the program advisor, individual students will select a focus area, with a focus of a minimum of 9 credits in the content strand and 9 credits in the pedagogy strand. Nine credits of coursework will be completed in each strand area. These courses will be selected in order to meet the needs and interests of each individual student. Focus areas may include technology, assessment, special education, diversity, literacy, curriculum and instruction, secondary and elementary education, among others.

No courses below the 7000 level will be accepted toward the program without written approval of the program chairperson.

MEd—Educational Leadership and Management: School Principal or Supervisor/Director

Graduate Program Co-Chairs
Randy Howe, EdD
Edward Philbin, CAGS
Graduate Committee
Lynne Celli-Sarasin, PhD *Charles Conroy, EdD*

Program Objectives

The Master of Education in Educational Leadership and Management Program prepares the student to meet the standards of Massachusetts Educator Initial Licensure as either a Supervisor/Director (PreK-12) or School Principal (PreK-6, 5-8, 9-12). The program offers courses and experience that equip school administrators with the skills and competencies necessary for becoming effective educational leaders.

About the Program

This program is an interdepartmental program. Within this spirit, relationships between faculty members in education departments and other programs across the university have been allied.

Program Description

The MEd program in Educational Leadership and Management is designed for students with the desire to:

- Develop competencies in managerial skills related to political arenas, personnel, fiscal affairs, acquisition of material resources, diverse publics and pupil populations, and organizational change
- Strengthen, deepen and expand the knowledge base in the field of leadership and management in order to anticipate and to solve current and future problems inherent in the educational system
- Demonstrate through course work and field-based experiences the knowledge, skills and attitudes that are required to lead and manage an educational enterprise effectively and efficiently

The University offers preparation for two Massachusetts Licenses

Principal Licensure (PreK-6, 5-8, 9-12)
Supervisor/Director-Licensure (PreK-12)

There are two initial licensure options in this program. There is one option for students who wish to seek school principal licensure and a second option for students who wish to supervise or direct programs in a school system. Successful completion of the degree and all requisite licensure requirements qualifies degree recipients for endorsement as a principal or supervisor/director.

Non-Licensure Candidates

Students who do not wish to pursue licensure may, in consultation with their advisor, plan a 39 credit program of study that meets their professional and personal goals. Courses from each of the four competency areas should be included (see advisor). Applicants to the non-licensure track do not need to submit scores from the Massachusetts Tests for Educator Licensure (MTEL).

Admissions Standards and Criteria

To apply for enrollment in the MEd in Educational Leadership and Management Program, the student must submit documents as outlined in the graduate admission section as well as:

- A minimum of three years of teaching experience
- Applicants to Option A and B must successfully complete the literacy and communication subtests of the Massachusetts Tests for Educator Licensure (MTEL) and submit passing scores as part of their application.
  In addition, students must successfully pass the appropriate content area exam(s) of the MTEL prior to student teaching.
- Applicants must provide documentation of a valid teacher certification/license at the initial level.
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

For more information regarding licensure requirements for teacher/administrator preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit.*

Program Requirements

A minimum of 39 graduate credits is required to complete the MEd program as well as to prepare for application for one of the two initial licenses: principal license (Option A) and supervisor/ director (Option B).

Both programs consist of:

- A core of tightly-focused and comprehensive courses;
- Students within the Massachusetts licensure sequence are involved in three broad based pre-practicum experiences leading up to the formal practicum/internship. A supervised practicum/internship is in the form of field-based educational experience.
- The practicum/intership is 300 clock hours to be completed within one year.
- Optional Thesis (EDLM 9500): A thesis topic is chosen in consultation with the student's advisor early in the last year of study, or no later than the completion of 24 semester hours of study. A student must successfully defend their thesis to a committee as described in the handbook of thesis guidelines.
- Comprehensive exam covering the basic principles and concepts inherent in the field of educational leadership and management.

Program of Study

Option A—School Principal (PreK-6, 5-8, 9-12) Licensure

Required Courses

EDLM	8000	*Community Relations*	3 S.H.
EDLM	8010	*Human Resources and Personnel Administration*	3 S.H.
EDLM	8020	*Law for the Educator*	3 S.H.
EDLM	8030	*Public School Finance*	3 S.H.
EDLM	8040	*Curriculum Leadership and Evaluation*	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM	9000	*The Principal: Organization and Administration of the Elementary, Middle, and Secondary School*	3 S.H.
EDLM	9010	*Cases and Concepts in Educational Administration*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
EDLM	9300	*Practicum in Educational Leadership and Management: School Principal: PreK-6* **or**	6 S.H.
EDLM	9310	*Practicum in Educational Leadership and Management: School Principal: 5-8* **or**	6 S.H.
EDLM	9320	*Practicum in Educational Leadership and Management: School Principal: 9-12*	6 S.H
		Elective in consultation with advisor	3 S.H.
EDLM	9999	*Comprehensive Exam*	0 S.H.
		Total for Degree	**39 S.H.**

Option B—Supervisor/Director (PreK-12) Licensure

Required Courses

EDLM 8000	*Community Relations*	3 S.H
EDLM 8010	*Human Resources and Personnel Administration*	3 S.H
EDLM 8020	*Law for the Educator*	3 S.H
EDLM 8030	*Public School Finance*	3 S.H
EDLM 8040	*Curriculum Leadership and Evaluation*	3 S.H
EDLM 8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM 9000	*The Principal: Organization and Administration of the Elementary, Middle, and Secondary Schools*	3 S.H
EDLM 9010	*Cases and Concepts in Educational Administration*	3 S.H
EDLM 9020	*Collegial Supervision*	3 S.H
EDLM 9100	*Dynamics of Planned Change*	3 S.H
EDLM 9101	*Practicum in Educational Leadership and Management: Supervisor/Director*	6 S.H.
	Elective in Consultation with advisor	3 S.H.
EDLM 9999	*Comprehensive Exam*	0 S.H.
	Total for Degree	**39 S.H.**

Non-Licensure Candidates

Students who do not wish to pursue licensure may take the core courses in either track plus six semester hours of electives for a total of 39 semester hours and a comprehensive examination.

MEd—Educational Leadership and Management: Technology Leader

Graduate Program Chair
Randy Howe, EdD
Graduate Committee
Nancy Jones, EdD *Jacquelyn Abromitis, EdD*

Program Objectives

The MEd in Educational Leadership and Management: Technology Leader Program is a non-licensure program designed to provide future leaders in technology to school systems. The technology leader degree track provides an in-depth examination of the implications of the technology revolution that has the potential to transform teaching and learning in our schools. Special emphasis is placed on the key role that technology leaders have in initiating the process of change, technology integration and faculty development. The track includes a variety of opportunities for hands-on technology-based experiences and includes critical core courses in educational leadership and management. This track is primarily offered off-campus through a collaborative partnership with the Merrimack Education Center in Chelmsford and Jon L. Jenmarc in Boston.

Program Description

The MEd program in Educational Leadership and Management is designed for students with the desire to:

- Gain competence in the use of software applications as productivity and learning tools
- Develop perspective on their daily work by examining the theory and practice of education
- Create models that incorporate the use of technology to support effective teaching and curriculum development
- Explore the use of instructional technology to address contemporary educational issues
- Understand the implication of digital literacy for teaching and learning
- Plan for building and maintaining technology infrastructure within a school system.

Admissions Standards and Criteria

To apply for enrollment in the MEd in Educational Leadership and Management: Technology Leader Program, candidates must submit documents as outlined in the graduate admissions section. The MTEL Exam is not required for this technology leadership track of the MEd in Educational Leadership and Management.

- An appropriate teacher license (An Initial or Professional License is required for admission).
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

Program of Study

A minimum of 36 graduate credits is required to complete the MEd program. The program curriculum consists of:

Required Core Courses

EDLM	8040	*Curriculum Leadership and Evaluation*	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
EDLM	9100	*Dynamics of Planned Change*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
EDLM	9130	*Practicum/Internship*	6 S.H.
		Subtotal	18 S.H.

Required Technology Courses

ETEC	9200	*Project in Educational Technology*	3 S.H.
EDLM	9002	*Managing Educational Technology Infrastructure*	3 S.H.
		Subtotal	6 S.H.

Choose Four Electives in Consultation with Advisor
(Samples of Electives)

ETEC	8700	*Creating Educational Web Sites*	3 S.H.
ETEC	7600	*Introduction to Educational Technology*	3 S.H.
ETEC	8500	*Educational Technology Ethics*	3 S.H.
ETEC	9140	*Communication and Productivity Tools for Teachers*	3 S.H.
ETEC	8600	*Computer and Writing*	3 S.H.
		Subtotal	12 S.H.
		Total for Degree	**36 S.H.**

M.Ed.—Early Childhood, Elementary, or Middle School Education

Graduate Program Chair

Pamela Hill, EdD

Advisor

Ian Bothwell, EdD

Graduate Committee

Anne Howard, PhD	*Edward Philbin, CAGS*
Randy Howe, EdD	*Shari Stokes, EdD*
Nancy Murray, EdD	*Annette Sullivan, EdD*

The M.Ed. programs in Early Childhood Education, Elementary Education and Middle School Education offer 2 tracks: one for the Professional License in the selected licensure area and one for the Initial License in the selected licensure area.

Professional Licensure Track

Program Objectives

The M.Ed. in Early Childhood Education, M.Ed. in Elementary Education, and the M.Ed. in Middle School Education Programs in the professional licensure track are designed for fully licensed teachers who wish to pursue advanced levels of reflection, knowledge, skill, and professionalism.

Program Descriptions

The M.Ed. in Early Childhood Education, M.Ed. in Elementary Education, and the M.Ed. in Middle School Education Programs of study enable educators to:

- Reflect on historical, philosophical, and theoretical perspectives related to current educational issues and practice
- Examine empirical research and engage in the scientific reasoning process
- Acquire and apply advanced knowledge of child development theory and research in the design and implementation of education curricula, practices, and environments
- Acquire knowledge of how children develop as thinkers and learners
- Acquire and apply advanced knowledge of emerging, research-based educational principles in the planning, implementation, and evaluation of the educational environment and instructional program
- Become more aware of societal demands on the curriculum as they relate to meeting the diverse needs of students
- Investigate effective educational partnership models, which focus on family strengths, circumstances, and cultural experiences
- Demonstrate effective strategies and techniques for working with diverse populations of students in integrated learning environments
- Examine the shared values, ethics, purposes and commitments, which bond the educational community
- Acquire a professional orientation of collegiality and support, whereby contributions can be made to the improvement of education through the construction of knowledge and application
- Broaden curriculum content knowledge and skills

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Early Childhood Education, Master of Education in Elementary Education or Master of Education in Middle School Education, a student must submit documents as outlined in the graduate admission section as well as:

- An appropriate teacher license (An Initial or Professional License is required for admission).
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at 978-665-3233 or visit their web site at *http://www.fitchburgstate.edu/edunit.*

Program Requirements

The Master of Education in Early Childhood Education, Master of Education in Elementary Education, and Master of Education in Middle School Education require that 36 semester hours be acquired in a suggested sequence within six years or less. The course sequence has been designed to ensure quality and provide flexibility to serve the variety of student interests and professional needs. A program advisor assists each student with the planned sequence and advises the selection of electives to meet individual goals, interests and licensure requirements.

Each program is composed of:

- Three required common core courses
- Designated specialized courses from the selected disciplines of early childhood education, elementary education or middle school education
- Content elective courses to fulfill licensure or recertification requirements and to compete the 36-semester hour program.

Programs of Study

Required Core Courses

EDUC	7228	*(*A) Contemporary Issues and Curriculum for Multi-needs Populations*	3 S.H.
EDUC	8310	*(*C) Advanced Research in Education*	3 S.H.
EDUC	9150	*(*C) Advanced Seminar in Reflective Practice and Action Research*	3 S.H.
		Subtotal	9 S.H.

Early Childhood Education Program Courses

EDUC	7300	*(*A) Advanced Child Development*	3 S.H.
EDUC	8450	*(*B) Literacy in Early Childhood Education*	3 S.H.
EDUC	8200	*(*C) Qualitative Reading Assessment and Analysis*	3 S.H.
EDUC	8270	*(*C) Collaborating with and Involving Parents in Early Childhood Education*	3 S.H.
EDUC	8500	*(*B) Developmental Assessment in Early Childhood Education*	3 S.H.
		Subtotal	15 S.H.

Elementary Education Program Courses

EDUC	7300	*(*A) Advanced Child Development*	3 S.H.
EDUC	8400	*(*B) Literacy in Elementary Education*	3 S.H.
EDUC	8200	*(*C) Qualitative Reading Assessment and Analysis*	3 S.H.
EDUC	8650	*(*C) Advanced Strategies and Approaches for Teaching Critical Thinking in Content Areas*	3 S.H.
EDUC	8600	*(*B) Advanced Seminar in Child-Centered Issues*	3 S.H.
		Subtotal	15 S.H.

Middle School Education Program Courses

EDUC	8150	*(*A) Advanced Assessment, Design and Evaluation of the Middle School Curriculum*	3 S.H.
EDUC	8750	*(*A) Seminar in Early Adolescent Issues*	3 S.H.
EDUC	8350	*(*B) Middle School Instructional Strategies and Practices*	3 S.H.
READ	8132	*(*B) Content Area Reading and Writing: Fostering Literacy in Middle School and High School*	3 S.H.
		Subtotal	12 S.H.

Content Elective Courses

Students in each discipline, with the recommendation of an advisor, select a combination of content elective credits, which serve the individual's professional goals, interests and licensure requirements, and complete the 36 semester hour program. It is strongly advised that students seek approval of their advisor before selecting content electives.

Subtotal of Electives	12-15 S.H.
Total for Degree	**36 S.H.**

(*A) (*B) (*C) indicate sequence suggested to strengthen knowledge, skills and dispositions. It is strongly recommended that students follow this sequence in order to gain the necessary knowledge and competencies for more advanced courses.

Initial Licensure Track

Program Objectives

The M.Ed. in Early Childhood Education (PreK-2), M.Ed. in Elementary Education (1-6), and M.Ed. in Middle School Education (5-8) Programs in the Initial Licensure Track are designed for those individuals who have completed an appropriate baccalaureate degree but without an initial license who wish to acquire the competencies and requirements for the initial license of the selected programs: early childhood education, elementary education or middle school education.

Program Description

The M.Ed. in Early Childhood Education, M.Ed. in Elementary Education, and M.Ed. in Middle School Education Programs in the Initial Licensure Track aim to enable candidates to:

- Acquire the competencies and habits of mind of effective teaching
- Reflect on historical, philosophical and theoretical perspectives related to current educational issues and practice
- Examine empirical research and engage in the scientific reasoning process
- Acquire and apply advanced knowledge of child development theory and research in the design and implementation of education curricula, practices and environments
- Acquire knowledge of how children develop as thinkers and learners
- Acquire and apply advanced knowledge of emerging, research-based educational principles in the planning, implementation and evaluation of the educational environment and instructional program
- Become more aware of societal demands on the curriculum as they relate to meeting the diverse needs of students
- Investigate effective educational partnership models, which focus on family strengths, circumstances and cultural experiences
- Demonstrate effective strategies and techniques for working with diverse populations of students in integrated learning environments
- Examine the shared values, ethics, purposes and commitments, which bond the educational community
- Acquire a professional orientation of collegiality and support, whereby contributions can be made to the improvement of education through the construction of knowledge and applications

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Early Childhood Education, Master of Education in Elementary Education or Master of Education in Middle School Education, a candidate must submit documents as outlined in the Graduate Admission section as well as:

- Passing score on the Communication and Literacy Skills portion of the Massachusetts Tests for Educator Licensure (MTEL)
- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?
  3. Tell us about a significant event that involved you in a teaching or helping role.
     - Describe the situation as it occurred at the time.
     - What did you do in that particular situation?
     - How did you feel about the situation at the time you were experiencing it?
     - How do you feel about the situation now?
     - What would you change, if anything?

Upon completion of this program and endorsement of the candidate for the initial license, the candidate may chose to matriculate into a post-master's 18-credit program for the professional license.

Program Requirements

The M.Ed. for Initial License in Early Childhood Education, Elementary Education, and Middle School Education requires that 39 semester hours be acquired in a suggested sequence. The course sequence has been designed to ensure a developmental approach to acquiring the necessary competencies of effective teachers. A program advisor assists each candidate with the planned sequence and advises the selection of courses.

Each program is composed of:

- Five required common core courses
- Designated specialized courses from the selected disciplines of early childhood education, elementary education, or middle school education
- Field experiences and practicum experiences

Candidates in the M.Ed. programs for the initial license of teachers of early childhood education, elementary education and middle school education must complete or demonstrate:

- Passing scores on the Communications and Literacy Skills portion of MTEL (required for matriculation)
- Passing scores on the content portions of MTEL required for initial license in the selected discipline. For middle School Education passing scores are required in either Humanities or Math/Science.
- 100 hours field experience (These field experiences will be conducted in diverse settings)
- 300 hours practicum

Admission to the practicum is dependent upon a passing score on all required portions of MTEL required for initial license in the selected discipline, early childhood education, elementary education or middle school education; completion of all field experience; and positive disposition assessments and a Stage 2 review.

Programs of Study

Required Core Courses

SPED	7650	*Inclusion of Students with Disabilities in the Regular Classroom*	3 S.H.
EDUC	7023	*(*A) Education Foundations: Theory and Practice (15 hrs field experience)***	3 S.H.
EDUC	7026	*(*C) Studying Skillful Teaching* **or**	
EDUC	7600	*(*C) Strategies for Creating an Effective Learning Environment*	3 S.H.
CRAR	8140	*(*C) Creative Teaching*	3 S.H.
EDUC	8300	*(*C) Research in Education*	3 S.H.
EDUC	9100	*(*C) Reflective Seminar and Action Research*	3 S.H.
		Subtotal	18 S.H.

Early Childhood Education Program Courses (PreK-2)

EDUC	7003	*(*A) Educational Issues in Child Development (10 hrs field experience)***	3 S.H.
EDUC	8250	*(*B) Family Involvement in Early Childhood (20 hrs field experience)***	3 S.H.
EDUC	7120	*(*B) Advanced Methods for Integrating Science, Math and Social Studies in the Early Childhood Setting I*	3 SH
EDUC	7123	*(*B) Advanced Methods for Integrating Science, Math and Social Studies in the Early Childhood Setting II (35 hrs field experience total for I and II)***	3 S.H.
EDUC	7222	*(*B) Language Arts and Literacy in Early Childhood Settings (25 hrs field experience)***	3 S.H.
EDUC	9400	*(*B) Practicum I/Early Childhood Education*	3 S.H.
EDUC	9450	*(*B) Practicum II/Early Childhood Education*	3 S.H.
		Subtotal	21 S.H.

Elementary Education Program Courses (K-5)

EDUC	7003	*(*A) Educational Issues in Child Development (10 hrs field experience)***	3 S.H.
EDUC	8360	*(*B) Advanced Social Studies in Education (20 hrs field experience)***	3 S.H.
EDUC	7015	*(*B) Language Arts and Literacy in Elementary Education (25 hrs field experience)***	3 S.H.
EDUC	7025	*(*B) Teaching Science in the Elementary and Middle School (20 hrs field experience)***	3 S.H.
EDUC	7040	*(*B) Advanced Concepts and Methods of Elementary and Middle School Math (20 hrs field experience)***	3 S.H.
EDUC	9600	*(*C) Practicum I/Elementary Education*	3 S.H.
EDUC	9650	*(*C) Practicum II/Elementary Education*	3 S.H.
		Subtotal	21 S.H.

Middle School Education Program Courses (5-8)

EDUC	7013	*(*A) Middle School Structures and Curriculum (15 hours field experience)***	3 S.H.
EDUC	7024	*(*A) Educational Issues in Early Adolescent Development (15 hrs field experience)***	3 S.H.
EDUC	7014	*(*B) Reading and Writing in the Content Areas (20 hrs field experience)***	3 S.H.

Choose 2 of the following four, depending on licensure area sought: (20 hrs field experience for each**) 6 S.H.

For Humanities Licence			
EDUC	8360	*(*B) Advanced Social Studies in Education* **and**	
EDUC	7225	*(*B) Language Arts and Literacy at the Middle School*	
Or For Math/Science Licence			
EDUC	7025	*(*B) Teaching Science in the Elementary and Middle School* **and**	
EDUC	7040	*(*B) Advanced Concepts and Methods of Elementary and Middle School Math*	
EDUC	9700	*(*C) Practicum I/Middle School Education*	*3 S.H.*
EDUC	9750	*(*C) Practicum II/Middle School Education*	*3 S.H.*
		Subtotal	**21 S.H.**
		Total for Degree	**39 S.H.**

(*A) (*B) (*C) indicate sequence suggested to strengthen knowledge, skills, and dispositions. It is strongly recommended that candidates follow this sequence in order to gain the necessary knowledge and competencies for more advanced courses.

**Courses requiring a field experience

MEd—Occupational Education

Graduate Program Chair

James Alicata, PhD

Graduate Committee

Matthew McGee, MEd, MBA
Robert Peach, MEd
Wayne Whitfield, PhD

Program Objectives

The graduate program in occupational education is designed for students who have earned a baccalaureate degree in technology education or vocational education and want increased awareness and knowledge of current issues and trends in occupational education. The program develops an individual's professional competencies in relation to their career goals in education and provides advanced study of the principles and practices of educational research.

Program Description

The MEd in Occupational Education Program consists of 36 credits to be completed in a suggested sequence within six years. The course sequence has been designed to ensure quality and provide flexibility to serve the variety of student interests and professional needs. A program advisor assists each student with the planned sequence, and advises the selection electives (12 semester hours) to meet individual goals and interests.

There are three principal sites where the OCED graduate program is offered:

North

Greater Lowell Regional Vocational/Technical High School
250 Pawtucket Blvd.
Tyngsboro, MA 01879

Central

Assabet Valley Regional Vocational School
Fitchburg St.
Marlborough, MA 01752

South

Bristol Plymouth Regional Vocational/Technical High School
940 County St.
Taunton, MA 02780

Additional Sites

Greater New Bedford Regional Technical High School
1121 Ashley Blvd.
New Bedford, MA 02745

Blue Hills Regional Technical School
800 Randolph St.
Canton, MA 02021

Montachusett Regional Vocational/Technical High School
1050 Westminster St.
Fitchburg, MA 01420

Diman Regional Vocational/Technical High School
251 Stonehaven Rd.
Fall River, MA 02723

Whittier Regional Vocational/Technical High School
115 Amesbury Line Rd.
Haverhill, MA 01830

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Occupational Education Program, a student must submit documents as outlined in the Graduate Admission section as well as:

- Documentation of standard certification or vocational teacher approval

Program Requirements

The MEd in Occupational Education program consists of 36 credits to be completed in a suggested sequence within six years.

Total credits are divided between:

- Twenty-four semester hours of required courses
- Twelve semester hours of electives designed to allow the vocational educator to develop specific skills relative to their career goals

It is recommended that students take OCED 7250: Research and Statistics in Occupational Education, early in the program. All electives must be approved by the program advisor prior to enrollment in the courses.

Program of Study

Required Courses

OCED	7000	*History and Philosophy of Occupational Education*	3 S.H.
OCED	7050	*Seminar in Occupational Education*	3 S.H.
OCED	7100	*Supervision in Occupational Education*	3 S.H.
OCED	7150	*Evaluation in Occupational Education*	3 S.H.
OCED	7200	*Public School Laws Relating to Occupational Education*	3 S.H.
OCED	7250	*Research and Statistics in Occupational Education* or	3 S.H.
EDLM	8050	*Seminar: Research in Educational Leadership*	3 S.H.
OCED	7300	*Curriculum Development in Occupational Education*	3 S.H.
OCED	7350	*Public School Finance in Occupational Education*	3 S.H.
		Total required courses	24 S.H.

Elective Courses (Partial Listing) Required 12 S.H.

OCED	7230	*Addressing the Needs of Students with Disabilities in Voc Tech Ed*	
OCED	7232	*Developing & Implementing a Standards-Based Curriculum in Voc Tech Ed*	
OCED	7233	*Teaching Methods for Vocational Technical Education: Using Research-Based Practices to Develop Effective Instructional Strategies*	
OCED	7239	*Seminar for the Beginning Vocational Technical Education Teacher*	
OCED	7240	*Teaching Methods for Vocational Technical Education: Educating & Assessing the Vocational Technical Education Learner*	
OCED	7237	*Managing Student Behavior in a Healthy & Safe Environment*	
OCED	7238	*Teaching Methods for Vocational Technical Education: Instructional Strategies*	
OCED	7400	*Advanced Methods of Teaching in Occupational Education*	
OCED	7410	*Organization and Administration of Vocational Guidance*	
OCED	7420	*Administration of Cooperative Educational Programs*	
OCED	7430	*Effective Teaching of Special Needs Students in the Vocational Environment*	
OCED	7450	*Vocational Special Needs Seminar*	
		Total elective credits	**12 S.H.**
		Total for Degree	**36 S.H.**

MEd—Science Education

Graduate Program Chair

Christopher Cratsley, PhD

Graduate Committee

George Babich, PhD
Dorothy Boisvert, EdD
Meledath Govindan, PhD
Margaret Hoey, PhD
Michael Nosek, PhD
Christopher, Picone, PhD
Howard Thomas, PhD

Program Objectives

The graduate program in science education offers two tracks for students who want to expand their study of biology, chemistry, earth science and environmental science. Track A enhances teaching methods, curricula, research and content in science education. Within this track students can pursue professional licensure in general science. Track B prepares students with ethical perspectives, experimental methods, research experience and science content necessary for careers educating the public about scientific issues.

Program Description

The science teaching track (Track A) is flexible enough to accommodate students interested in elementary, middle school, secondary or non-traditional science education. Students work closely with an advisor to select the appropriate balance of content and teaching courses to meet their objectives. Students pursuing professional licensure in general science must complete a science teaching internship and 18 credits of coursework in science content chosen from at least two of the sciences including biology, earth science and appropriate courses in physics and chemistry offered through the science education program.

The non-teaching track prepares students for careers ranging from integrated scientific research to environmental advocacy, by providing a flexible curriculum of content courses while emphasizing how research is conducted and disseminated and the impact of contemporary issues in science.

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Science Education Program, the student must submit documents as outlined in the graduate admission section as well as:

- An official transcript of a bachelor's degree from a regionally accredited institution with a major or minor in biology, earth science, physics, chemistry or related field
- The official results of the GRE (Graduate Record Examination)
- Documentation of initial teaching license (for students pursuing professional licensure)

Program of Study

Track A—Science Education

Required Courses

SCED	9000	*Advanced Methods in Teaching Science*	3 S.H.
SCED	9001	*The Modern Science Curriculum*	3 S.H.
SCED	9002	*Research in Science Education*	1 S.H.
EDUC	8300	*Research in Education*	3 S.H.
		Subtotal Required Credits	10 S.H.

Electives Required for Professional License

SCED	8002	*Internship*	3-6 S.H.
		Science Content Courses	18-24 S.H.

Additional elective options

SCED	8001	*Independent Study*	
SCED	8003	*Practicum in Science*	
		Workshops	
		Science Teaching Courses	
		Related Education Courses	
		Approved Transfer Courses	
		Subtotal Required Electives	27 S.H.
		Total for Degree	**36 S.H.**

Track B—Science (Non-teaching)

Required Courses

SCED	8001	*Independent Study*	3 S.H.
SCED	9003	*Science, Ethics and Technology*	3 S.H.
SCED	9004	*Research in Science*	3 S.H.
		Subtotal Required Courses	9 S.H.

Electives

SCED	8002	*Internship*	
		Workshops	
		Science Content Courses	
		Approved Related Courses	
		Approved Transfer Courses	
		Thesis	
		Subtotal Required Electives	**26 S.H.**
		Total for Degree	**36 S.H.**

MEd—Secondary Education

Graduate Program Chair
Nancy Kelly, PhD
Graduate Committee
Melanie Gallo, MEd
Edward Roberts, MEd
Michele Zide, EdD

Program Objectives

The Office of Graduate and Continuing Education offers a generic master of education degree for teachers at the secondary level, which **does not lead to licensure in any area**. This program provides teachers with the opportunity to update their knowledge and skills and to participate in courses specific to their professional goals.

Program Description

The MEd program addresses education reform issues and curriculum/development models to meet the needs of today's school systems. The 36 credit degree program curriculum is individually planned in consultation with the advisor and provides teachers with the latest effective, research-based practices and technologies to enhance classroom instruction.

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Secondary Education Program, students must submit documents as outlined in the graduate admissions section. Applicants to this program are not required to submit scores for the Massachusetts Test for Educator Licensure (MTEL) or a copy of a teaching license.

Program of Study

Required Courses

SEED	7015	*Introduction to Strategies for Effective Teaching in the Academic Discipline*	3 S.H.
SPED	8150	*Research in the Secondary Education Classroom*	3 S.H.
SPED	7709	*The High School Environment: Challenges in Educating Students with Disabilities*	3 S.H.
SEED	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
SEED	8260	*Curriculum Design and Development*	3 S.H.
SEED	8250	*Curriculum and Technology*	3 S.H.
ENGL	8076	*Creating Literacy Experience: Building Reading and Writing into the Content Areas*	3 S.H.
		Subtotal	**21 credits**
SEED	9100	**Thesis/Action Research (3 required)*	3-6 S.H.

With program chair's approval, students may choose three to six credit action research/independent study (SEED 9080) rather than thesis

SEED	9500	*Internship* **or**	
SEED	8090	*Practicum Thesis/Internship minimum:*	
		Subtotal	**3-9 credits**

Electives (7000 level or higher)

Electives in the academic discipline, in consultation with advisor, minimum	*6-12 credits*
Total for Degree	**36-39 S.H.**

MEd—Special Education

Graduate Program Chairs

Anne Howard, PhD, Severe Disabilities and Guided Studies
Nancy Murray, EdD, Moderate Disabilities

Graduate Committee

Pamela Hill, EdD
Anne Howard, PhD
Randy Howe, EdD
Nancy Murray, EdD
Edward Philbin, CAGS
Shari Stokes, EdD
Susan Rosa, EdD

Program Description

The Special Education Department has developed a variety of innovative master's programs to meet teacher candidate and PreK-12 district needs.

The MEd in Special Education programs are designed to prepare students for careers in teaching children with disabilities. The degree offers students preparation in one of four programs areas:

- Teacher of students with moderate disabilities: PreK-8 or 5-12 (Initial Licensure)
- Teacher of students with severe disabilities (Initial Licensure)
- Reading specialist (Initial Licensure)
- Guided studies (Professional Licensure and Individualized tracks)

Program Objectives

The program prepares graduates to:

- Demonstrate knowledge of the field of special education, including legislation and litigation that has affected the rights of individuals with disabilities
- Demonstrate competence in teaching that leads to success for all students in the least restrictive environment
- Evaluate students to determine their educational needs and to design appropriate programs
- Collaborate with teachers and parents to develop effective teaching strategies that will enhance student's learning
- Demonstrate sensitivity, understanding and respect for children and adults from diverse cultural, religious, ethnic, and racial backgrounds

Initial Licensure Programs

Teacher of Students with Severe Disabilities

This program prepares graduates to work with students with severe disabilities at all levels.

This program begins each September at the Massachusetts Bay Community College in Wellesley and on Fitchburg State's campus in Fitchburg. Cohorts will also begin in September 2010 and 2011 at a location to be determined.

Teacher of Students with Moderate Disabilities

This program prepares graduates to work with students with moderate disabilities at grade levels Pre-K through 8, or 5-12. This program meets at the Fitchburg State University campus.

Note: *The Massachusetts Department of Elementary and Secondary Education (formerly Department of Education) continually revises teacher education standards and requirements for licensure. As a result, students are advised that Special Education program requirements are also subject to change to maintain compliance with both State and professional standards. The Special Education program at Fitchburg State University makes a concerted effort to notify students of changes in program requirements and regulations as soon as they are officially published by the Massachusetts Department of Elementary and Secondary Education. When appropriate, the Special Education program advises students of potential changes in advance of formal announcement and implementation.*

The Special Education program will work with teacher candidates and the school districts to meet these requirements. Through a nationally accredited and state approved curriculum, the program provides the content and experiences that will lead to initial licensure, provided the candidate has met other state requirements, such as the employment and Massachusetts Tests for Educator Licensure (MTEL) requirements. Prospective students are strongly encouraged to attend an informational meeting to more fully understand the requirements they must meet to acquire licensure.

Admissions Standards and Criteria

To apply for enrollment in a Master of Education in Special Education Program leading to initial licensure, a student must submit documents as outlined in the Graduate Admission section, as well as:

- Applicants to graduate initial licensure teacher preparation programs must successfully complete the literacy and communication subtests of the Massachusetts Tests for Educator Licensure (MTEL) and submit passing scores as part of their application.
- In addition, students must successfully pass the appropriate content exam(s) of the MTEL prior to the practicum experience as follows:
  - Moderate Disabilities (PreK-8)—Foundations of Reading Test; General Curriculum Multi-subject and Math subtests
  - Moderate Disabilities (5-12)—Foundations of Reading Test; General Curriculum Multi-subject and Math subtest or a content specific test (e.g. English, History, Math)
  - Severe Disabilities (All)—General Curriculum Multi-subject and Math subtests

For the most current information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239

- Personal Statement
  Students must complete an essay of no more than one page in response to one of the following questions/statement:
  1. Tell about a positive situation in which you helped a person and made a significant difference in that person's life.
  2. What are the most important factors in establishing a long-term working relationship with students, friends, etc.?

3. Tell us about a significant event that involved you in a teaching or helping role.
    - Describe the situation as it occurred at the time.
    - What did you do in that particular situation?
    - How did you feel about the situation at the time you were experiencing it?
    - How do you feel about the situation now?
    - What would you change, if anything?

Program Requirements

Students interested in the master's program may be required to take prerequisite courses depending on their previous course work and/or teaching certificate(s).

Prerequisite courses include:

		Course in Child Psychology or Human Growth and Development (any level)
EDUC	7023	*Education Foundations: Theory and Practice*

Program of Study

Teacher of Students with Severe Disabilities: Initial Licensure Program

Prerequisites

EDUC	7023	*Foundations of Education: Theory and Practice*

Required Courses

Summer I			
SPED	7004	*Working with Individuals with Disabilities*	3 S.H.
SPED	8300	*Language Development, Differences and Disorders*	3 S.H.
Fall I			
SPED	8020	*Behavior Analysis and Support for Students with Severe Disabilities*	3 S.H.
SPED	8021	*Curriculum Frameworks and Alternate Assessments*	3 S.H.
Spring I			
SPED	7950	*Physical and Medical Aspects of Working with Students with Disabilities*	3 S.H.
SPED	8022	*Augmentative and Alternative Communication*	3 S.H.
Summer I			
SPED	9000	*Research in Special Education*	3 S.H.
SPED	XXXX	*Elective*	3 S.H.
Fall II			
SPED	8023	*Services and Supports from Birth through Adulthood*	3 S.H.
SPED	8024	*Program Development in the Functional Domains*	3 S.H.
SPED	8863	*Practicum: Severe Disabilities (course extends through spring II)*	3 S.H.
Spring II			
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
SPED	9004	*Practicum and Research Application Seminar (taken concurrently with SPED 8863)*	3 S.H.
		Total for Degree	**39 S.H.**

Teacher of Students with Moderate Disabilities: Initial Licensure Program

Moderate Disabilities (Pre-K-8)

Prerequisites

EDUC	7023	*Foundations of Education: Theory and Practice*

Required Courses

SPED	7004	*Working with Individuals with Disabilities*	3 S.H.
SPED	8300	*Language Development, Differences and Disorders*	3 S.H.
SPED	8008	*Working with Children with Autism Spectrum Disorders in the Inclusive Classroom*	2 S.H.
SPED	8016	*Curriculum, Strategies in Reading/Language Arts*	3 S.H.
SPED	8915	*Assessment, Curriculum, Strategies for Mathematics (focus on pre-K-8)*	3 S.H.
SPED	8011	*Differentiating Content Instruction in the Inclusive Classroom*	3 S.H.
SPED	8180	*Positive Behavioral Supports for Students with Disabilities*	3 S.H.
SPED	9130	*Advanced Identification and Remediation of Reading/Language Based Learning Disabilities (taken concurrently with SPED 8917)*	3 S.H.
SPED	8917	*Assessments in Reading/Language Arts*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
SPED	9000	*Research in Special Education*	3 S.H.
SPED	8963	*Moderate Disabilities Practicum*	3 S.H.
SPED	9004	*Practicum and Research Application Seminar (taken concurrently with SPED 8963)*	3 S.H.
		One Approved Elective	3 S.H.
		Total Credits	**41 S.H.**

Moderate Disabilities (5-12)

Prerequisites

EDUC	7023	*Foundations of Education: Theory and Practice*

Required Courses

SPED	7004	*Working with Individuals with Disabilities*	3 S.H.
SPED	8300	*Language Development, Differences and Disorders*	3 S.H.
SPED	8008	*Working with Children with Autism Spectrum Disorders in the Inclusive Classroom*	2 S.H.
SPED	8016	*Curriculum, Strategies in Reading/Language Arts*	3 S.H.
SPED	8916	*Assessment, Curriculum, Strategies for Mathematics (focus on 5-12)*	3 S.H.
SPED	8011	*Differentiating Content Instruction in the Inclusive Classroom*	3 S.H.
SPED	8180	*Positive Behavioral Supports for Students with Disabilities*	3 S.H.
SPED	8918	*Reading and Writing: Methods for Secondary Students with Moderate Disabilities*	3 S.H.
SPED	8917	*Assessments in Reading/Language Arts*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
SPED	9000	*Research in Special Education*	3 S.H.
SPED	8963	*Moderate Disabilities Practicum*	3 S.H.
SPED	9004	*Practicum and Research Application Seminar (taken concurrently with SPED 8963)*	3 S.H.
		One Approved Elective	3 S.H.
		Total Credits	**41 S.H.**

Moderate Disabilities (Pre-K-8) Adding Elementary Ed. License 1-6

Prerequisites

EDUC	7023	*Foundations of Education: Theory and Practice*	

Required Courses

SPED	7004	*Working with Individuals with Disabilities*	3 S.H.
SPED	8300	*Language Development, Differences and Disorders*	3 S.H.
SPED	8008	*Working with Children with Autism Spectrum Disorders in the Inclusive Classroom*	2 S.H.
SPED	8016	*Curriculum, Strategies in Reading/Language Arts*	3 S.H.
SPED	8915	*Assessment, Curriculum, Strategies for Mathematics (focus on pre-K-8)*	3 S.H.
SPED	8011	*Differentiating Content Instruction in the Inclusive Classroom*	3 S.H.
SPED	8180	*Positive Behavioral Supports for Students with Disabilities*	3 S.H.
SPED	9130:	*Advanced Identification and Remediation of Reading/Language Based Learning Disabilities*	3 S.H.
SPED	8917	*Assessments in Reading/Language Arts*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
SPED	9000	*Research in Special Education*	3 S.H.
SPED	8963	*Moderate Disabilities Practicum*	3 S.H.
SPED	9004	*Practicum and Research Application Seminar (taken concurrently with SPED 8963)*	3 S.H.
EDUC	8XXX	*Elementary Ed. Practicum*	3 S.H.
		ADDITIONAL 150 HOUR PRACTICUM	
		One Approved Elective	3 S.H.
		Total Credits	**44 S.H.**

Reading Specialist

Program Description

This program defines the knowledge and skills necessary for effective assessment, instruction and leadership in the field of reading. It responds to the needs of school districts by preparing specialists in leadership roles, as well as to the needs of students with a wide range of abilities.

The Reading Specialist Program provides candidates with a rigorous, research based curriculum, a range of assessment, teaching and staff development opportunities.

This program has been approved by NCATE through the International Reading Association and by the Massachusetts Department of Elementary and Secondary Education.

Program Prerequisites

- Children's Literature or Literature of Young Adults
- Child Development (Child Growth and Development)
- Principles and Practices of Teaching Reading or equivalent.
- An initial teaching license

Candidates may follow one of the following tracks or certificate:

MEd in Special Education: Reading Specialist (Initial Licensure)

This track prepares candidates for Reading Specialist licensure. Initial licensure in early childhood, elementary, middle school or special education is required for entry into this track.

Required Courses

SPED	8300	*Language Development, Differences and Disorders (or a comparable course)*	3 S.H.
SPED/ READ	7016	*Understanding the Structure of the English Language*	3 S.H.
SPED/ READ	7017	*Psychology of Reading, Reading Development and Disabilities*	3 S.H.
SPED/ READ	8017	*Specialized Reading Approaches*	3 S.H.
SPED/ READ	8018	*Reading Disabilities and the Assessment of Reading*	3 S.H.
SPED/ READ	8019	*Assessment of Writing Skills and Writing Disabilities*	3 S.H.
SPED/ READ	9100	*Research in Reading Education*	3 S.H.
SPED/ READ	9012	*Reading Specialist: Leadership Roles*	3 S.H.
SPED/ READ	9101	*Practicum: Reading Specialist*	3 S.H.
SPED/ READ	9104	*Reading Specialist Practicum Seminar*	3 S.H.
		Two Approved Electives	6 S.H.
		Total for Degree	**36 S.H.**

MEd in Special Education: Reading—All Levels (Non-Licensure)

This track does not lead to Reading Specialist licensure. Initial licensure or permission of the Program Chair is required for entry into this track.

Required Courses

SPED	8300	*Language Development, Differences and Disorders (or a comparable course)*	3 S.H.
SPED/ READ	7016	*Understanding the Structure of the English Language*	3 S.H.
SPED/ READ	7017	*Psychology of Reading, Reading Development and Disabilities*	3 S.H.
SPED/ READ	8017	*Specialized Reading Approaches*	3 S.H.
SPED/ READ	8018	*Reading Disabilities and the Assessment of Reading*	3 S.H.
SPED/ READ	8019	*Assessment of Writing Skills and Writing Disabilities*	3 S.H.
SPED/ READ	9100	*Research in Reading Education*	3 S.H.
SPED/ READ	9102	*Reading Specialist: Leadership Roles*	3 S.H.
SPED	9500	*Independent Study: Comprehensive Culminating Experience*	3 S.H.
		Three Approved Electives	9 S.H.
		Total for Degree	**36 S.H.**

Certificate in Reading Specialist (Licensure Only—Reading Specialist)

This certificate track prepares candidates to seek initial licensure as a Reading Specialist. Candidates must already hold a master's degree and initial licensure in early childhood, elementary, middle school, or special education.

Required Courses

SPED	8300	*Language Development, Differences and Disorders (or a comparable course)*	3 S.H.
SPED/READ	7016	*Understanding the Structure of the English Language*	3 S.H.
SPED/READ	7017	*Psychology of Reading, Reading Development and Disabilities*	3 S.H.
SPED/READ	8017	*Specialized Reading Approaches*	3 S.H.
SPED/READ	8018	*Reading Disabilities and the Assessment of Reading*	3 S.H.
SPED/READ	8019	*Assessment of Writing Skills and Writing Disabilities*	3 S.H.
SPED/READ	9102	*Reading Specialist: Leadership Roles*	3 S.H.
SPED/READ	9101	*Practicum: Reading Specialist*	3 S.H.
SPED/READ	9104	*Practicum Seminar*	3 S.H.
		Total for Certificate	**27 S.H.**

Guided Study

Program Description

The Guided Study Program is designed to meet the needs of two groups of teachers who already hold special education licensure.

- Students who hold initial licensure as teachers of students with moderate disabilities or severe disabilities, and who are seeking professional licensure in the same area and level, will pursue the Guided Studies Professional Track.
- Students who are not interested in a teaching license or already hold standard or professional licensure in special education, and who are interested in further development of their individual interests and skills, will pursue the Guided Studies Individualized Track. Students in this track work with an advisor to identify and receive approval for three goal areas that they wish to address through curriculum offerings. The advisor will work with the student to develop a plan of study to meet the identified goals.

Program Requirements

Guided Studies Professional Track

Students are required to complete 36 credits, including eight required courses (24 credits), an action research project (six credits), and two electives (six credits).

Required Courses

SPED	9000	*Research in Special Education*	3 S.H.
SPED	9400	*Current Issues in Special Education*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
SPED	8025	*Alternate Assessment in the Content Areas*	3 S.H.
SPED	8180	*Positive Behavioral Supports for Students with Disabilities*	3 S.H.
SPED	9003	*Reflective Teaching*	3 S.H.
SPED	9130	*Advanced Identification and Remediation of Reading/Language Based Learning Disabilities*	3 S.H.
SPED	8950	*Assessment Strategies in the Content Areas*	3 S.H.
SPED	9500	*Internship/Independent Study*	6 S.H.
SPED	9012	*Electives*	6 S.H.
		Total for Degree	**36 S.H.**

Guided Studies Individualized Track

Students are required to complete 39 credits including three required courses (nine credits), 24 credits in three individualized goal areas, and six credits in an Internship/independent study.

Required Courses

SPED	9000	*Research in Special Education*	3 S.H.
SPED	9400	*Current Issues in Special Education*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.

MEd—Technology Education

Graduate Program Chair
Wayne Whitfield, PhD
Graduate Committee
Keith Chenot, MFA
Sanjay Kaul, PhD
Matthew McGee, MEd, MBA

Program Objectives

The Master's of Education in Technology Education Program leads to professional licensure (5-12) in the field of technology education.

Program Description

The master's in technology education is a 39-credit program designed to fill the requirements for certification as a technology teacher and to meet the needs of the practicing teacher with prior preparation and experience. In addition, the program aims to:

- Demonstrate the application of a wide range of knowledge in the area of technology education, including the technologies of manufacturing, communications, construction, power, energy and transportation
- Prepare teachers to design, implement, and evaluate the most contemporary teaching strategies and approaches in technology/engineering education
- Enable teachers to acquire skills in developing and working with tools, machines and materials
- Explore relationships among technology/engineering education, career awareness, math, science and other fields of knowledge
- Implement unique problem-oriented strategies for diverse and exceptional student populations

Admissions Standards and Criteria

To apply for enrollment in the Master of Education in Technology Education Program, a student must submit documents as outlined in the graduate admissions section as well as:

- An official transcript of a bachelor's degree from a regionally accredited institution (A liberal arts or science undergraduate major is required for those seeking full certification)
- A copy of initial licensure or professional certification
- For more information regarding licensure requirements for teacher preparation programs, contact the Educator Licensure Office at (978) 665-3239 or visit the Web site at *www.fitchburgstate.edu/edunit*.

Program Requirements

The 39-credit program includes:

- Nine credits of graduate pedagogy
- Fifteen credits of technology knowledge and field applications
- Nine credits of professional electives
- Six credits of clinical experience

Program of Study

Graduate Pedagogy			
ITEC	8000	*Advanced Methods of Teaching at the Secondary Level*	3 S.H.
EDUC	8300	*Research in Education*	3 S.H.
ITEC	8900	*Curriculum Development for Technology Education*	3 S.H.
		Subtotal of Graduate Pedagogy	9 S.H.
Competence and Field Applications (in the following cluster areas)			
ITEC	8400	*Communications in Technology Education*	3 S.H.
ITEC	8500	*Power and Energy in Technology Education*	3 S.H.
ITEC	8600	*Manufacturing in Technology Education*	3 S.H.
ITEC	8700	*Construction in Technology Education*	3 S.H.
ITEC	8800	*Transportation in Technology Education*	3 S.H.
		Subtotal of Competence and Field Applications	15 S.H.
Clinical Experience			
ITEC	9500	*Internship*	6 S.H.
Professional Electives			
		Choose from any industrial technology courses.	9 S.H.
		Total for Degree	**39 S.H.**

Master of Science Programs

MS—Applied Communication

Graduate Program Chairs
John Chetro-Szivos, PhD
Graduate Committee
Robert Carr, PhD
Randy Howe, EdD
Viera Lorencova, PhD
Charles Sides, PhD

Program Objectives

The Master of Science in Applied Communication Program at Fitchburg State University will provide a course of study examining the relationship between theory and effective communication practice in interpersonal, organizational, public and mass communication contexts. Upon graduation a student will be prepared to assume leadership roles in organizations, their community, or in the academy where they can promote the effective and ethical practice of communication.

Students choose from concentrations in:

- Applied Communication Studies
- Health Communication
- Technical and Professional Writing
- Instructional Technology (offered at Rollins Griffith Teacher Center, Dorchester)
- Library Media (offered at Rollins Griffith Teacher Center, Dorchester)

Program Description

Courses are designed to prepare students to pursue careers in a broad range of media, business, public, and educational organizations; or to continue their graduate education beyond the master's level.

- Courses are conveniently offered in the late afternoon and evening to accommodate life-work schedules
- Distance learning opportunities are available for some courses
- The faculty includes experienced communications media practitioners and a community of scholars drawn from a wide variety of interests in the field of communications

Admissions Standards and Criteria

To apply for enrollment in the Master of Science in Applied Communication Program, a student must submit documents as outlined in the graduate admissions section as well as:

- Two or more years of experience with communication media technology for specific concentrations
- A possible departmental interview

Program Requirements

The Master of Science Degree in Applied Communication Program requires a total of 36 semester credit hours as follows:

Applied Communication Studies Track

Objectives

The Applied Communication Studies Track is designed to provide a solid foundation in the theories and concepts of communications which can be applied within business, industry, government, non-profit, and health services.

Health Communication Track

This track will assist health care professionals develop the communication competencies necessary to improve the treatment of illness, promotion of health, management of health care professionals and the capacity to implement social change programs. This degree will enhance health care professionals' ability to act as an agent of change within their institutions and community. Students learn the critical role that communication plays in human action and choice and how they can utilize communication to be more effective in their practice as health care professionals. Track has 7 required courses, 3 elective courses and a 6 credit capstone for a total of 36 credits.

Technical and Professional Writing Track*

Objectives

The Technical and Professional Writing track is designed to provide knowledge and skills necessary to develop print and online communications materials within business, industry, government and journalistic enterprises.

***Note: This program utilizes a cohort model and will commence when sufficient enrollment is secured.**

Library Media Track (offered in the greater Boston area)

This Track is currently under review and is not accepting new students

Objectives

The Library Media track equips teachers with training in library and information science, and in media technology.

This program is designed to:

- Develop skills for operating library media centers
- Provide knowledge of the new information technologies
- Forge selection and utilization competencies for print and non-print media
- Assist educators in meeting the requirements for certification as a School Library Media Specialist.

Programs of Study

Applied Communication Studies Track

Required

COMM 7011	*Foundations of Communications Studies*	3 S.H.
COMM 8011	*Interpersonal Communication*	3 S.H.
COMM 8013	*Applied Rhetoric*	3 S.H.
COMM 9110	*Communications Research Methods*	3 S.H.
COMM 9120	*Legal and Ethical Issues in Communication*	3 S.H.
COMM 9130	*Organizational Communication*	3 S.H.
	Subtotal	18 S.H.

Electives (choose four)

COMM xxxx	*Political Communication*	3 S.H.
COMM 7012	*Training and Development*	3 S.H.
COMM xxxx	*Documentation Design*	3 S.H.
COMM 8012	*Intercultural Communication*	3 S.H.
COMM 9010	*Contemporary Issues in Communication*	3 S.H.
COMM 9072	*Persuasion in Context: Communications for Marketing, Advertising, and Public Relations*	3 S.H.
COMM 7300	*Health Communication*	3 S.H.
COMM 7301	*Gender Communication*	3 S.H.
COMM 8114	*Social Marketing*	3 S.H.
	Additional elective offerings may be available	
	Subtotal	**12 S.H.**

Practicum or Thesis (choose one)

COMM 9200	*Practicum in Communication*	6 S.H.
COMM 9980	*Thesis in Communication*	6 S.H.
	Subtotal	**6 S.H.**
	Degree Total	**36 S.H.**

Health Communication Track

Required

COMM 7011	*Foundations of Communication Studies*	3 S.H.
COMM 7300	*Health Communication*	3 S.H.
COMM 8114	*Social Marketing*	3 S.H.
COMM 9130	*Organizational Communication*	3 S.H.
COMM 8011	*Interpersonal Communication*	3 S.H.
COMM 9110	*Communication Research Methods*	3 S.H.
COMM 9120	*Legal and Ethical Issues in Communication*	3 S.H.
	Subtotal	**21 S.H.**

Electives (choose three)

Additional courses may be developed and added.

COMM 8011	*Interpersonal Communication*	3 S.H.
COMM 8115	*Communication for Social Change*	3 S.H.
COMM 8120	*Crisis Communication*	3 S.H.
COMM 9010	*Contemporary Issues in Communication*	3 S.H.
COMM 9072	*Persuasion in Context: Communication*	3 S.H.
COMM 9130	*Organization Communication*	3 S.H.
COMM XXXX	*Topics: Advanced Professional Communication*	3 S.H.
	Subtotal	9 S.H.
	Capstone Project in Health Communication	6 S.H.
	Degree total	**36 S.H**

Technical and Professional Writing Track

Required

COMM 7011	*Foundations of Communications Studies*	3 S.H.
COMM 9010	*Contemporary Issues in Communication*	3 S.H.
COMM 9110	*Communications Research Methods*	3 S.H.
COMM 9120	*Legal and Ethical Issues in Communication*	3 S.H.
	Subtotal	**12 S.H.**

Electives

COMM 7000	*Writing Workshop 1*	3 S.H.
COMM 7500	*Writing Workshop 2*	3 S.H.
COMM 8300	*Writing Workshop 3*	3 S.H.
COMM 8400	*Writing Workshop 4*	3 S.H.
COMM 8500	*Philosophical Issues in Professional Writing*	3 S.H.
COMM 9090	*Interactive Design and Analysis in Communications Media*	3 S.H.
	Subtotal	**18 S.H.**

Practicum or Thesis (choose one)

COMM 9200	*Practicum in Communication*	6 S.H.
COMM 9980	*Thesis in Communication*	6 S.H.
	Subtotal	**6 S.H.**
	Degree Total	**36 S.H.**

Library Media Track (offered in the greater Boston area)

Required

ETEC 9140	*Managing Communications*	3 S.H.
COMM 9010	*Contemporary Issues in Communication*	3 S.H.
COMM 9110	*Communications Research Methods*	3 S.H.
COMM 9120	*Legal and Ethical Issues in Communication*	3 S.H.
	Subtotal	**12 S.H.**

Electives—Partial Listing (choose six)

COMM 7253	*HTML: Developing a Third Generation Web Site*	3 S.H.
COMM 8000	*Administration of School/Library Media Centers*	3 S.H.
COMM 8250	*Advanced Studies in Children's and Young Adults Literature*	3 S.H.
COMM 8600	*Selection and Evaluation of Instructional Materials*	3 S.H.
COMM 9030	*Instructional Design and Analysis in Comm Media*	3 S.H.
COMM 9090	*Interactive Multimedia*	3 S.H.
COMM 9975	*Clinical Experience*	3 S.H.
	Subtotal	**18 S.H.**

Practicum or Thesis (choose one)

COMM 9200	*Practicum in Communication*	6 S.H.
COMM 9980	*Thesis in Communication*	6 S.H.
	Subtotal	**6 S.H.**
	Degree Total	**36 S.H.**

Certificate Option

Certificate of Achievement

As an alternative to the full master's degree, students completing COMM 9010, COMM 9120, COMM 9140, and COMM 9110, and two additional courses totaling 18 credit hours in Communications Media Management with a cumulative average of 3.0 or better may be awarded a Certificate of Achievement.

MS—Computer Science

Graduate Program Chair

Stephen Taylor, PhD

Graduate Committee

Kevin Austin, PhD
Natasha Kourtonna, PhD
Brady Chen, PhD
Nadimpalli Mahadev, PhD

Program Objectives

The Master's Degree Program in Computer Science provides the opportunity for graduate students to obtain competitive skills and knowledge to succeed as computer scientists in the constantly developing high-technology market place.

Program Description

The Master's Degree Program in Computer Science is designed for students with the desire to:

- Upgrade and enhance their existing knowledge and skills
- Gain experience with new technologies
- Prepare for advanced professional positions
- Initiate new career paths

The program specializes in hardware, software, networking and state-of-the-art knowledge. Degree candidates have the opportunity to study a variety of topics such as object-oriented systems development, graphics, networks and database systems. Our program provides our students the opportunity to develop marketable technical skills for the quickly evolving information-based society.

Concentrations are designed for computer science graduates as well as for students and professionals from other disciplines. Our flexible program serves students of various backgrounds who are committed to broadening their education, earning advanced degrees and improving their careers.

Candidates select their courses of study to build on their knowledge, skills and interests. A close collaboration between students and the graduate faculty ensures that individual goals meet with department standards. A departmental graduate advisor is available to all students.

Admissions Standards and Criteria

To apply for admission into the M.S. in Computer Science Program, applicants must have an equivalent of 4-year bachelors degree. They must submit documentation as outlined by the graduate admissions section.

Depending on background, an applicant may be admitted into the graduate program and be required to complete undergraduate prerequisites as determined by the graduate program chair.

Program of Study

The program offers fundamental and advanced courses in computer science. Core courses provide firm theoretical foundation for further study. Most classes are offered in the evenings.

Required Core Courses

CSC	7050	*Theory of Computation*	3 S.H.
CSC	7400	*Object Oriented Analysis and Design*	3 S.H.
CSC	8050	*Design and Analysis of Algorithms*	3 S.H.
CSC	7011	*Computer Engineering*	4 S.H.
CSC	7013	*Advanced Mathematics for Computer Scientists*	3 S.H.
CSC	7014	*The Practice of Computer Programing*	3 S.H.
CSC	7132	*Operating Systems and Networking*	3 S.H.
		Subtotal	22 S.H.

Elective courses (Minimum of 11 S.H.)

Students select elective courses with advisor approval

Algorithms			
CSC	7160	*Software Development in Computer Graphics*	3 S.H.
CSC	9050	*Graph Algorithms*	3 S.H.
Web Programming			
CSC	7500	*Database Design*	3 S.H.
CSC	8205	*Advanced Java*	3 S.H.
Programming			
CSC	7000	*Programming in UNIX in "C"*	3 S.H.
CSC	7200	*Object Oriented Programming*	3 S.H.
CSC	8190	*UNIX Network Programming*	3 S.H.
Networking			
CSC	7255	*Data Communications and Networking*	3 S.H.
CSC	8255	*Advanced Network Technologies*	3 S.H.
Operating Systems			
CSC	8180	*Windows Programming*	3 S.H.
CSC	8280	*Advanced Operating Systems*	3 S.H.
General Electives			
CSC	7600	*Embedded Systems*	3 S.H.
CSC	7-9600	*Topics in Computer Science*	3 S.H.
CSC	8901	**Internship*	1-3 S.H.
CSC	9000	***Independent Study*	3 S.H.
Optional Thesis			
CSC	9010	****Thesis I*	3 S.H.
CSC	9011	****Thesis II*	3 S.H.
CSC	9012	*Thesis Continuation I*	3 S.H.
CSC	9013	*Thesis Continuation II*	3 S.H.
		Total for Degree	**33 S.H.**

**Internship may be repeated but a maximum of 3 credits will be counted towards the student's program of study.*

***Maximum of 6 credits is permitted for Independent Study*

****Required for Optional Thesis; students must follow thesis procedures established by the department.*

MS—Counseling

Graduate Program Chair

John M. Hancock, PhD

Advisor

Helen O'Donnell, EdD, Advisor, School Guidance Program

Graduate Committee

Daneen Deptula, PhD *Christine Shane, PhD*
Lynne Kellner, PhD *Richard J. Spencer, PhD*

Program Objectives

The MS in Counseling program is designed to prepare professional counselors as human development teachers or facilitators whose primary function is to help individuals enhance life adjustment, facilitate personal growth and expand behavioral competencies so that they can cope more effectively with their environment. Through the program students increase their self-awareness, their sensitivity to others and their effectiveness as facilitators as they develop skills in counseling. The three major programs of study—marriage and family therapy, mental health counseling and school guidance counseling—all fulfill the academic requirements for state licensure in their respective fields.

Program Description

The program is based on a developmental socialization model of intervention, which recognizes that at each developmental stage throughout the lifespan, individuals face tasks that can lead to problems needing professional assistance. Counselor education is based on the belief that effective counselors are both personally and professionally integrated. For this reason, a balance between didactic and experiential learning is maintained.

Programs of Study

Mental Health Counseling

This program prepares professionals for counseling positions in a wide variety of settings. Mental health counseling involves the application of the principles of psychotherapy, human development, learning theory, group dynamics, and the etiology of mental illness and dysfunctional behavior. The applications are relevant to individuals, couples, families and groups for the purpose of treating psychopathology and promoting optimal mental health.

Students take a core of required courses emphasizing generic skills and two elective courses.

This program of study offers students the opportunity to apply for licensure in mental health counseling (L.M.H.C.).

School Guidance Counseling

Prepares professionals for counseling at either the elementary (PreK-8) or secondary (5-12) school levels or both. Course work centers on preparation to work with children with serious emotional, cognitive and behavioral disorders in a school environment. In addition, graduates are educated in methods to work effectively with teachers, parents, administrators, nurses, school psychologists and other members of the school community to assist youngsters to obtain an appropriate education and to participate productively in society.

This program of study offers students the opportunity to apply for initial licensure as an elementary school (PreK-8) and/or secondary school (5-12) guidance counselor.

Special Status Student

This program of study is designed for professionals who already hold a master's degree in counseling or a related field with the opportunity to apply for:

- Licensure as a marriage and family therapist (L.M.F.T.)
- Licensure as a mental health counselor (L.M.H.C.)
- Initial licensure as a school guidance counselor (PreK-8) and/or (5-12)

A second master's degree is not awarded. Students apply for enrollment through the CAGS in Interdisciplinary Studies: Counseling/Psychology Track. Applicants seeking initial licensure as a school guidance counselor must submit passing scores on the communication literacy portion of the Massachusetts Test for Educator Licensure (MTEL) for admission to the CAGS in Interdisciplinary Studies: Counseling/Psychology Track.

Admissions Standards and Criteria

To apply for enrollment in the MS in Counseling Program, a student must submit documents as outlined in the graduate admissions section as well as:

- A personal statement (maximum 300 words) describing goals and reasons for applying to the program
- Applicants to school guidance counseling programs of study must submit passing scores on the communication and literacy portion of the Massachusetts Test for Educator Licensure (MTEL).

Students are admitted to the university and take Phase I coursework in the program. After the successful completion of the Phase I coursework, students apply for candidacy in the graduate counseling program.

Candidacy is awarded by the Behavioral Sciences Committee on Graduate Programs based on:

- The successful completion of the undergraduate prerequisites
- The successful completion of the experiential and theoretical aspects of counseling (Phase I course work)
- The successful completion of the Communication and Literacy portion of the Massachusetts Test for Educator Licensure (MTEL).
- The demonstration of competent personal and appropriate ethical behavior
- The demonstration of competent interpersonal skills

Program Requirements

For all programs, students together with their advisors, must plan a program to meet the candidate's career goals. All courses must have advisor approval prior to registration.

I. Undergraduate Prerequisites	***9 S.H.**
Developmental Psychology	3 S.H.
Abnormal Psychology	3 S.H.
Statistics	3 S.H.

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* *Undergraduate credits are not figured into degree requirements for graduate study.*

II. Eligibility for Field Experience Classes

Eligibility for field experience classes (PSY 8130 Psychopathology I: Diagnosis and Assessment; PSY 8174 Systems, Laws, and Issues in Forensic Case Work; PSY 8175 Treatment Issues and Interventions in Forensic Case Work; PSY 8200 Principles of Guidance and Counseling; PSY 8210 Occupational Information and Career Counseling; PSY 8220 Counseling in the Elementary School; PSY 8300 Psychological Testing and Assessment: Theory and Practice; PSY 8310 Psychology Testing and Assessment: Individual Measure of Intelligence; PSY 8500 Counseling Techniques and Case Analysis: Individuals and Families) requires admission to the MS in Counseling program.

III. Eligibility for Internship or Practicum

Eligibility for PSY 9062 Internship in Counseling (3 cr.); PSY 9075 Internship in Counseling (6 cr.), PSY 9085 Practicum in School Counseling or PSY 9090 Internship in Mental Health Counseling—Phase III of the program is determined by the Behavioral Science Committee on Graduate Programs based on:

- Candidacy
- A cumulative grade point average of at least 3.0 in Phase I and Phase II courses
- No incomplete grades in Phase I and Phase II courses
- Demonstration of effective written and oral communication skills
- Demonstration of competent interpersonal and intrapersonal behavior
- Demonstration of competent counselor behavior
- Demonstration of appropriate counselor ethical behavior
- Positive recommendation by a majority of Graduate Committee members

IV. Graduate Requirements

Mental Health Counseling

A minimum of 60 semester hours is required. Students must take:

- Fifty-four semester hours of required courses including 12 semester hours of internship
- Six semester hours of electives

Phase I

PSY	7010	*Counseling Theories*	3 S.H.
PSY	7020	*Group Dynamics*	3 S.H.

Phase II

PSY	7005	*Mental Health and Family Counseling: Professional Practice, Standards and Ethics*	3 S.H.
PSY	8030	*Life Span Development*	3 S.H.
PSY	8130	*Psychopathology I: Diagnosis and Assessment*	3 S.H.

PSY	8132	*Psychopathology II: Treatment Planning and Outcome*	3 S.H.
PSY	8190	*Social and Cultural Foundation: Issues in Counseling*	3 S.H.
PSY	8215	*Lifestyle and Career Development*	3 S.H.
PSY	8300	*Psychological Testing and Assessment: Theory and Practice*	3 S.H.
PSY	8500	*Counseling Techniques and Case Analysis: Individuals and Families*	6 S.H.
PSY	8700	*Group Work and Leadership in Mental Health Counseling*	3 S.H.
PSY	8710	*Family and Systems, Models and Interventions*	3 S.H.
PSY	8950	*Research and Program Evaluation*	3 S.H.
PSY	****	*Psychology Elective*	6 S.H.

Phase III

PSY	9090	*Internship in Mental Health Counseling*	12 S.H.
		Total for Degree	**60 S.H.**

School Guidance Counseling

A minimum of 54 semester hours is required including 12 semester hours of practicum

Phase I

PSY	7010	*Counseling Theories*	3 S.H.
PSY	7020	*Group Dynamics*	3 S.H.

Phase II

PSY	7000	*School Counseling: Professional Practice, Standards & Ethics*	3 S.H.
PSY	8010	*Issues in Development: Counseling Children and Adolescents*	3 S.H.
PSY	8100	*Childhood Trauma and its Impact on School Based Services*	3 S.H.
PSY	8190	*Social and Cultural Foundations: Issues in Counseling*	3 S.H.
PSY	8200	*Principles of Guidance and Counseling*	3 S.H.
PSY	8205	*Psychology of Learning: Theory and Applications*	3 S.H.
PSY	8210*	*Occupational Information and Career Counseling (For Secondary Certification, 5-12)* or	
PSY	8220*	*Counseling in the Elementary School (For Elementary Certification, Pre-K-9)*	3 S.H.
PSY	8300	*Psychological Testing and Assessment: Theory and Practice*	3 S.H.
PSY	8500	*Counseling Techniques and Case Analysis: Individuals and Families*	6 S.H.
PSY	8705	*Group Work and Leadership in School Counseling*	3 S.H.
PSY	8950	*Research and Program Evaluation*	3 S.H.

Phase III

PSY	9085	*Practicum in School Counseling*	12 S.H.
		Total for Degree	**54 S.H.**

** Candidates seeking dual licensure (PreK-12) take both PSY 8210 and PSY 8220, graduating with 57 S.H.*

MS—Criminal Justice*

Graduate Program Chair

Richard Wiebe, JD, PhD

Graduate Committee

Deon Brock, PhD
Randall Grometstein, JD, PhD
Margot Kempers, PhD
Elizabeth Walsh, JD
Paul Weizer, PhD

*The MS in Criminal Justice Program is currently under review and is not accepting new students until further notice.

MS—Nursing (Forensic Nursing) Online

Graduate Program Chair

Rachel Boersma, PhD, RN

Graduate Committee

Magda Bechar, PhD, RN
Robert Dumas, PhD, RN
Ann Scannell, ND, RN
Deborah A. Stone, MS, RN

The graduate program is accredited by the Commission on Collegiate Nursing Education (CCNE).

Program Description

The Master of Science in Nursing Degree Program is designed for registered nurses who wish to pursue advanced leadership positions in the community and the health care system. The graduate is prepared to contribute to the development of nursing science, to the improvement of health care, and to pursue doctoral study. The program is offered completely online.

Program Objectives

Through course work and clinical experience, graduates are prepared to:

- Base advanced professional practice on the concept that humankind are unique, interacting, multidimensional beings
- Use the nursing process to guide care for specialized patient populations
- Demonstrate competence in the advanced practice role
- Actively promote professional standards, ethics and legal principles in nursing and health care
- Use a variety of strategies to influence policy-making relating to societal health needs
- Assume leadership roles with health consumers and providers to improve the planning and delivery of health care
- Demonstrate a new application of ideas related to research evaluation, problem identification, practice outcomes or research application
- Integrate and use theoretical and empirical knowledge from the sciences, humanities and nursing as a basis of advanced clinical practice and professional decision-making
- Demonstrate commitment to the evolving profession of nursing

The specialty in forensic nursing prepares nurses to apply:

- Knowledge and skills of nursing and forensic science to the investigation of trauma concurrently with emergency care and emotional support for victims of violent crime
- The nursing process to public or legal proceedings
- Aspects of health care to the scientific investigation and treatment of trauma
- Sensitivity to the health needs and concerns of diverse populations as a clinical nurse specialist
- Direct services such as legal documentation to individual and group clients, including insurance companies and law firms
- Consultation and education for groups, related agencies and communities

- Expert witness skills in investigations related to violence and trauma
- Skills for varied settings, including emergency health services, schools, correctional facilities, varied community health agencies, employee assistance programs in occupational health settings and law enforcement agencies

Note: This program is offered on a cohort basis. Contact the Office of Admissions for program start date.

Admissions Standards and Criteria

To apply for enrollment in the Master of Science in Nursing Program, a student must submit documents as outlined in the graduate admissions section as well as:

- An official transcript as a graduate of an accredited baccalaureate nursing program. An alternative portfolio entry pathway is available to RN, with non-nursing BA/BS degrees
- Three letters of recommendation including documenting a minimum of one year of recent successful clinical practice or part-time equivalent
- A current US RN license (Applicants who reside and/or work outside the U.S. are not required to hold a US RN license but instead must possess a current license from the country they reside in or in which they will complete clinical coursework hours.)
- Written two-part essay to include:
  - Part I (no more than 300 words): Your reasons for wishing to attend graduate school or your reason for pursuing a post-master's certificate in a specialty area.
  - Part II (at least 1200 words): Your specific interests, the type of work you would like to pursue in this field, and how you intend to pursue employment or volunteer work in this area.
- CORI-Criminal Offense Record Investigation may be required by certain clinical agencies; the cost of funding a CORI may be at the student's expense

Program of Study—Master's Degree

The program is currently planned on a part-time, 6-7 credit per semester cycle. All courses are delivered online. The core nursing courses are taught on campus. The course sequence is designed to:

- Complete a majority of core nursing courses with the exception of the scholarly inquiry requirement prior to or concurrent with any clinical specialty nursing course
- Provide students the opportunity to select either a research project or thesis
- Cap the program with a practicum experience

It should be noted that nursing courses and required cognates may have prerequisite undergraduate or graduate course work.

Program of Study—Certificate

The RN, with an earned master's degree in nursing, must complete all required cognate and forensic nursing courses. Upon successful completion, they will receive a Certificate in Forensic Nursing.

Program Requirements

All courses are offered online.

A. Core Nursing Courses

NURS 7200	*Nursing Theory*	3 S.H.
NURS 7300	**Advanced Clinical Concepts*	3 S.H.
NURS 7400	*Contexts and Roles for Advanced Practice*	3 S.H.
NURS 7000	*Nursing With Diverse Populations*	1 S.H.

Scholarly Inquiry Requirement

NURS 7700	*Nursing Research*	3 S.H.
NURS 9010	*Research Thesis* **or**	3 S.H.
NURS 9100	*Research Project*	2 S.H.
	Subtotal	15 or 16 S.H.

B. Required Cognates

NURS 8410	*Criminal Law: Substantive and Procedural*	3 S.H.
NURS 8500	*Forensic Science and Technology*	3 S.H.
	Subtotal	6 S.H.

C. Required Nursing Courses

NURS 8000	*Introduction to Forensic Nursing*	3 S.H.
NURS 8130	**Scientific Foundations for Forensic Nursing Interventions*	3 S.H.
NURS 8200	**Forensic Nursing: Caring for Victims*	3 S.H.
NURS 8300	**Forensic Nursing: Caring for Perpetrators*	3 S.H.
NURS 9500	**Practicum in Forensic Nursing*	3 S.H.
	Subtotal	15 S.H
	Total for Degree	**36 or 37 S.H.**

** These courses have a clinical component for a total of 420 hours.*

Health Requirements and Liability Insurance

Health Requirements and Records should be sent to the graduate program chair and must be received prior to the commencement of any graduate nursing courses with clinical components

1. Annual physical exam documentation
2. Annual PPD (TB test) and proof of a negative chest X-ray if the PPD test was positive
3. Two doses of measles, mumps and rubella (MMR) vaccine or serologic proof of immunity
4. A booster dose of TD within the last 10 years
5. Three (3) doses of hepatitis B vaccine and a copy of dated immune titer and Proof of chicken pox or immunization

Personal Liability Insurance

Students must have professional malpractice coverage if enrolled in any clinical course. Currently, the University provides this personal liability coverage for all nursing students. If this University coverage should change, students will be responsible for purchasing their own professional liability insurance.

CPR

Current CPR Certification /recertification for health professionals (The department recommends that certification be through the American Heart Association's Health Care Provider certification process).

Applied Communication Studies Certificate Program

Graduate Program Chair
John Chetro-Szivos, PhD

Program Objectives

The Applied Communication Studies Certificate Program is designed to provide knowledge and skills for the effective development and management of communications media operations within business, industry, government, and health services.

Admissions Standards and Criteria

To apply for enrollment in the Applied Communication Studies Certificate Program, a student must submit documents as outlined in the graduate admissions section as well as:

- A possible departmental interview and portfolio presentation
- MAT/GRE/GMAT exams not required

Program of Study

The Applied Communication Studies Certificate Program consists of three required courses and 3 approved electives:

COMM 7011	*Foundations of Communications Studies*	3 S.H.
COMM 8011	*Interpersonal Communication*	3 S.H.
COMM 8013	*Applied Rhetoric*	3 S.H.
	Three electives chosen with advisor approval	9 S.H.
	Total for Certificate	**18 S.H.**

Certificate of Achievement

Students must complete the 18 credit hours required course work in applied communication.

Behavior Analyst Certificate Program

Graduate Program Chairs
Nancy Murray, EdD
Anne Howard, PhD

Program Description

Behavior Analyst Certificate Program provides the specialized training needed for individuals interested in becoming Board Certified Behavior Analysts (BCBA) through the national Behavior Analyst Certification Board, Inc.

The five course certificate program has been approved by the Behavior Analyst Certification Board, Inc. as meeting coursework eligibility requirements required for the Behavior Analysis Certification exam. Our carefully planned course sequence prepares individuals to work with children and adults with Autism Spectrum Disorders and other disabilities through the understanding of behavioral analysis and other factors that often contribute to student success.

Most graduate students enrolled in a Fitchburg State Special Education teaching license program will be able to apply two courses to a master's degree, while students in the non-licensure Special Education Guided Studies, Individualized Track could count up to five courses toward their degree.

Admissions Standards and Criteria

To apply for enrollment in the Behavior Analyst Certificate program, a student must submit documents as outlined in the graduate admissions section as well as:

- A personal statement (maximum 300 words). The statement should describe your goals and reasons for applying to the program and should include information about previous course work, training or work experiences related to the program. It should also discuss specifically the strengths you bring and the areas of competence you need to develop.
- Applicant must (one of the following must apply)
    1. Submit official master's degree transcript from a fully accredited institute of higher education
    2. Be matriculated in a Fitchburg State University master's degree program, or
    3. Concurrently submit an application to a Fitchburg State University master's degree program.

Program of Study

The following five courses must be completed by students wishing to pursue certification as a Board Certified Behavior Analyst. The first two courses must be taken in sequence (not concurrently) while the final three courses can be taken concurrently and in no specific order.

Required Courses:

SPED 8015	*Fundamentals in Applied Behavioral Analysis*	3 S.H.
SPED 8180	*Behavior Assessment and Support*	3 S.H.
SPED 8014	*Behavioral Analysis in Applied Settings*	3 S.H.
SPED 8175	*Ethical Issues and Collaboration*	3 S.H,
SPED 8030	*Integrating Behavior, Communication and Sensory Strategies to Meet the Needs of those with Disabilities*	3 S.H.
	Total for Certificate	**15 S.H.**

This sequence of courses has been approved by the Behavior Analysis Certification Board (BACB) to meet the 225 hour coursework requirement for taking the Board Certified Behavior Analyst (BCBA) Examination. In addition, students completing the Behavior Analyst Certification Program will need to make independent arrangements to complete 1500 hours of Supervised Independent Fieldwork to complete all requirements to sit for the Behavior Analysis Certification exam.

Civic Engagement Certificate Program

Graduate Program Chair
John Chetro-Szivos, PhD

Program Description

The certificate in Civic Engagement is designed to provide the student with the knowledge and skills to become an active, effective, ethical citizen in both their professional and personal life. Students develop reflective, analytic, and practical skills to apply what they learn in a classroom to civic engagement through service-learning classes, internships, community-engaged scholarships and creative activities. The 6 course, 18 credit program consists of 2 core required courses plus 4 additional courses chosen from amongst several disciplines.

Admissions Standards and Criteria

To apply for enrollment in the Certificate in Civic Engagement Program, a student must submit documents as outlined in the graduate admissions section as well as:

- MAT/GRE/GMAT exams but not required

Program of Study

Required Courses:

COMM	7016	*Communities and Civic Engagement*	3 S.H.
COMM	7015	*Career Strategies*	3 S.H.

Electives (Choose four)
(elective course choices may continue to be updated):

COMM	8011	*Interpersonal Communication*	
COMM	8012	*Intercultural Communication*	
COMM	8114	*Social Marketing*	
MGMT	9040	*Organizational Behavior and Development*	
MGMT	9050	*The Human Resource Function*	
MGMT	9200	*Managing the Not-for-Profit Organization*	
MGMT	9160	*Marketing Communication*	
POLS	9001	*Globalization and the American City*	
POLS	9002	*Leadership Strategies*	
		Total for Certificate	**18 S.H.**

Early Intervention Certificate Program

The Early Intervention Certificate Program is currently not accepting new students.

Program Description

Early Intervention is a program sponsored by the Massachusetts Department of Public Health. Students who study early intervention learn to help parents of children with special needs from birth to age three to recognize and understand their child's particular developmental needs and teach them ways to help their child grow.

Early intervention specialists work with children from birth to three who are premature, have feeding, vision, or hearing problems; are slow to sit up, stand, walk, talk, or do things for themselves; have behavior or attention difficulties; or were born with a disability or health condition that affects their development. Also, the early intervention specialist works with the families of children who have an established biological or environmental risk for developmental delay.

As part of a team, the early intervention specialist works with the family to determine what type of developmental help would be most beneficial for the child. Together they establish an Individual Family Service Plan (IFSP) that specifies all the educational, training, therapy, and support services the family will receive to best help the child.

Admissions Standards and Criteria

To apply for enrollment in Early Intervention Certificate Program, a student must submit documents as outlined in the graduate admission section as well as:

- Complete Child Psychology and an introductory course in special needs
- MAT/GRE/GMAT exams not required

Program Requirements

This certificate program combines twelve credits of course work and six practicum credits. The course work may be taken in any sequence. All coursework must be completed before the practicum.

Program of Study

SPED	6600	*Early Intervention*	3 S.H.
SPED	8140	*Screening and Assessment of at Risk Infants and Toddlers*	3 S.H.
SPED	7950	*Physical and Medical Aspects of Working with Students with Disabilities*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	
EDUC	8250	*Family Involvement in Early Childhood Education*	3 S.H.
SPED	8900	*Early Intervention Practicum*	6 S.H.
		Total for Certificate	**18 S.H.**

Educational Technology Certificate Program

Program Objectives

This program offers educators and administrators the necessary skills to utilize computer technology in the practice of teaching and program administration. This program stresses the use of the computer as both a teaching tool and as a means to examine curricula and teaching effectiveness.

Admissions Standards and Criteria

To apply for enrollment in the Educational Technology Certificate Program, a student must submit documents as outlined in the graduate admissions section.

- MAT/GRE/GMAT exams not required

Program of Study

A total of 15 semester hours of designated credits must be earned and a cumulative average of 3.0 maintained in the program to be eligible for the certificate. This program may be applied to any of the Master's degree or CAGS programs in Education.

Course Requirements

ETEC 7600	*Introduction to Educational Technology*	3 S.H.
ETEC 8500	*Educational Technology Ethics*	3 S.H.
ETEC 9140	*Communication and Productivity Tools for Teachers*	3 S.H.
ETEC 9200	*Project in Educational Technology*	3 S.H.
	One Educational Technology (ETEC) elective	3 S.H.
	Total for Certificate	**15 S.H.**

Fine Arts Director Certificate Program

Graduate Program Chair
Harry Semerjian, EdD

Program Objectives

The program is designed for those responsible for the supervision of fine arts programs or teachers moving into such areas of responsibility.

Admissions Standards and Criteria

To apply for enrollment in the Fine Arts Director Certificate program, a student must submit documents as outlined in the graduate admissions section.

- MAT/GRE/GMAT exams not required

Note: Applicants should either be certified to teach in one of the arts areas or hold a position as director of an arts area in a K-12 school.

Program of Study

The Fine Arts Director Certificate Program consists of four graduate courses. Applications are invited from individuals holding a valid teaching certificate in one of the arts areas.

The certificate program courses may be applied toward the CAGS Program in Educational Leadership and Management or the MEd in Arts Education.

Certificate Courses

CRAR 9051	*Supervising, Directing and Leading in Arts Education I*	3 S.H.
CRAR 9052	*Supervising, Directing and Leading in Arts Education II*	3 S.H.
CRAR 9060	*Creative Arts Research*	3 S.H.
CRAR 9070	*Creative Arts Curriculum Development and Application*	3 S.H.
	Total for Certificate	**12 S.H.**

Forensic Case Work Certificate Program

The Forensic Case Work Certificate Program is currently not accepting new students.

Program Objectives

The Forensic Case Work Certificate Program provides specialized training to professionals in the fields of criminal justice, mental health, or social services.

Program Description

Course work concentrates on:

- The nature of the offender and offense
- The designated systems that treat or otherwise manage the offender
- Issues and interventions in case work
- The legal and ethical issues that confront the workers in the systems

Admissions Standards and Criteria

To apply for enrollment in the Forensic Case Work Certificate Program, a student must submit documents as outlined in the Graduate Admissions section as well as:

- An official transcript of a bachelor's degree from an accredited institution in human services or a related field
- A personal statement (maximum 300 words). The statement should describe your goals and reasons for applying to this program and include information about previous course work, training or work experiences related to the program. It should also discuss specifically the strengths you bring and the areas of competencies you need to develop.
- MAT/GRE/GMAT exams not required

Program Requirements

A minimum of 22 semester hours over two years of study is required. Students may elect to extend that timeframe or complete the required course work in less time. There are 50 hours of course-related field practica and 150 clock hours of internship included in the program.

Program of Study

Undergraduate Prerequisite Courses

General Psychology
Introduction to Sociology
Abnormal Psychology
Introduction to Human Services (this course may be waived if the student is working or has worked in a human services or forensic casework facility.)

Phase I

PSY	8100	**Childhood Trauma and its Impact on School Based Services* **or**	3 S.H.
PSY	8120	**Sexual Abuse of Children and Adolescents*	3 S.H.
PSY	8172	*Criminal Psychopathology*	3 S.H.

Phase II

PSY	8140	*Alcohol Abuse and Other Addictive Disorders*	3 S.H.
PSY	8174	*Systems, Laws and Issues in Forensic Case Work*	3 S.H.
PSY	8175	*Treatment Issues and Intervention in Forensic Case Work*	3 S.H.
PSY	8176	*Mental Status Examination*	1 S.H.
		Elective Course Work	3 S.H.

Phase III

PSY	9065	*Internship in Forensic Case Work*	3 S.H.
		Total for Certificate	**22 S.H.**

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* *Students must take at least one of these two courses. If comparable courses have been taken at the undergraduate level, the student may apply to their advisor to have them credited to this certificate program.*

Forensic Nursing Certificate Program

Graduate Program Chair
Rachel Boersma, PhD

Program Objectives

This program provides an opportunity for advanced practice nurses who hold a master's degree in nursing from accredited programs to acquire specialization in forensic nursing. Forensic nursing is the application of nursing science to public or legal proceedings and the integration of the forensic aspects of health care with the bio-psycho-social education of the professional nurse. Students are prepared to deal with the prevention, scientific investigation, and treatment of victims of trauma and/or death as well as the investigation and treatment of perpetrators of abuse, violence, criminal activity and traumatic accidents. **The program is offered completely online.**

Program Description

The student in forensic nursing:

- is cross-trained in the principles and philosophies of nursing science, forensic science, and criminal justice
- assumes a mutual responsibility with law enforcement agencies and the courts in protecting the legal, civil and human rights of victims of violent crimes, as well as the rights of perpetrators

Admissions Standards and Criteria

To apply for enrollment in the Forensic Nursing Certificate Program, a student must submit documents as outlined in the graduate admissions section as well as:

- An official transcript of a master's degree in nursing from an accredited program
- Three letters of recommendation documenting a minimum of one year of recent successful clinical practice or part-time equivalent
- A current U.S. RN license (Applicants who reside and/or work outside the U.S. are not required to hold a US RN license but instead must possess a current license from the country they reside in or in which they will complete clinical coursework hours.)
- Written two-part essay to include:
  - Part I (no more than 300 words): Your reasons for wishing to attend graduate school or your reason for pursuing a post-master's certificate in a specialty area.
  - Part II (at least 1200 words): Your specific interests, the type of work you would like to pursue in this field, and how you intend to pursue employment or volunteer work in this area.
- CORI-Criminal Offense Record Investigation may be required by certain clinical agencies; the cost of funding a CORI may be at the student's expense

Program Requirements

The program consists of specialized courses in forensic nursing and related courses for a total of 21 credits. Four of the nursing courses contain a clinical/laboratory component, including a more extensive practicum.

Program of Study

All courses are offered online.

A. Required cognates in the Forensic Nursing track

NURS	8410	*Criminal Law: Substantive and Procedural*	3 S.H.
NURS	8500	*Forensic Science and Technology*	3 S.H.
		Subtotal	6 S.H.

B. Required nursing courses in the Forensic Nursing track

NURS	8000	*Introduction to Forensic Nursing*	3 S.H.
NURS	8130	**Scientific Foundations for Forensic Nursing Interventions*	3 S.H.
NURS	8200	**Forensic Nursing: Caring for Victims*	3 S.H.
NURS	8300	**Forensic Nursing: Caring for Perpetrators*	3 S.H.
NURS	9500	**Practicum in Forensic Nursing*	3 S.H.
		Subtotal	**15 S.H**
		Total for Certificate	**21 S.H.**

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* *These courses have a clinical component for a total of 360 hours.*

Health Requirements and Liability Insurance

Health Requirements and Records should be sent to the graduate program chair and must be received prior to the commencement of any graduate nursing courses with clinical components

1. Annual physical exam documentation
2. Annual PPD (TB test) and proof of a negative chest X-ray if the PPD test was positive
3. Two doses of measles, mumps and rubella (MMR) vaccine or serologic proof of immunity
4. A booster dose of TD within the last 10 years
5. Three (3) doses of hepatitis B vaccine and a copy of dated immune titer and Proof of chicken pox or immunization

Personal Liability Insurance

Students must have professional malpractice coverage if enrolled in any clinical course. Currently, the University provides this personal liability coverage for all nursing students. If this University coverage should change, students will be responsible for purchasing their own professional liability insurance.

Health Care Management Certificate Program

Graduate Program Chair
John Chetro-Szivos, PhD

Program Description

The Health Care Management Certificate program is designed to meet the career advancement needs of health care professionals, emerging leaders in the field seeking to build competencies, and to provide a strong foundation for those considering entry into the field of health care management.

This graduate level certificate may be taken as a stand-alone program, and some courses may be applied to graduate degrees in management or communication. The program is made up of 5 courses and a capstone project for a total of 18 credits.

Admissions Standards and Criteria

To apply for enrollment in the Health Care Management Certificate program, a student must submit documents as outlined in the graduate admissions section.

- MAT/GRE/GMAT exams are not required

Program of Study

MGMT 9252	*Health Care Management*	3 S.H.
MGMT 9253	*Cost Control in Health Care*	3 S.H.
MGMT 9251	*Legal & Ethical Issues in Health Care*	3 S.H.
COMM 7300	*Health Communication*	3 S.H.
NURS 7600	*Health Care Informatics*	3 S.H.
COMM 9050	*Health Care Management Capstone*	3 S.H.
	Total for Certificate	**18 S.H.**

Not-for-Profit Management Certificate Program

Graduate Program Chair
Christine Shane, PhD

Program Objectives

The purpose of the Not-for-Profit Management Certificate Program is to provide participants with the skills and abilities necessary to meet the challenges of managing within the complex and competitive arena of not-for-profit organizations. This certificate is comprised of 9 credits of core course work and 6 credits in track specific courses. Students are able to choose between 2 tracks, Track A in Not-for-Profit Management and Track B in Leadership in Public Administration and Government. At the completion of the Certificate Program, participants will have the unique ability to integrate fundamental management strategies with the not-for-profit organization's mission and values. The Certificate Program will be completed in fifteen (15) course credits.

Program Description

Social services agencies, foundations, churches, museums and school and professional associations, municipalities, government and public enterprises comprise the vast array of non-profit organizations.

The Not-for-Profit management Certificate program of study allows students to:

- Develop an understanding of the history and purpose of not-for-profit organizations.
- Implement sound fiscal management policies and practices in not-for-profit organizations.
- Explore strategies for fundraising and organizational sustainability for not-for-profit organizations.
- Understand the components of Strategic Planning and Program Evaluation for the sustainability of not-for-profit organizations.
- Strengthen the ability to recruit, retain and motivate employees of not-for-profit organizations.

The Not-for-Profit Management Certificate Program will be housed within the Department of Business Administration and will draw on faculty from the Departments of Business Administration, Behavioral Sciences, Economics, History, and Political Science Departments, administrators and other academic departments. Professionals engaged in not-for-profit organizations and services will be invited to participate in the program as adjunct faculty.

Individuals working in the public and not-for-profit sectors provide services that are vital to communities. Those individuals, accordingly, although well trained in the content of their professions (e.g. art, science, city planning, human services), often do not have the skills to effectively manage the "nuts and bolts" of their organizations such as budgeting, human resources, financial management and fundraising. The new Certificate Program will offer business skills paired with the underlying values of public and not-for-profit organizations. This program will increase the competencies of emerging and current public/not for profit managers and will increase the effectiveness of their services.

Admissions Standards and Criteria

To apply for enrollment in Not-for-Profit Management Certificate, a student must submit documents as outlined in the graduate admission section, as well as:

- A personal interview may be requested by the Program Chair or student
- MAT/GRE/GMAT exams not required

Program of Study

Core Courses (both tracks):

MGMT	9200	*Managing the Not-for-Profit Organization*	3 S.H.
MGMT POLS	7000/ 7000	*Selected Seminars in the Not-for-Profit Organization*	3 S.H.
MGMT	9210	*Program Planning and Evaluation of the Not-for-Profit Organization*	3 S.H.

Course Requirements

Track A: Not-for-Profit Management: select two (6 credits):

MGMT	9050	*The Human Resource Function and the Manager*	3 S.H.
MGMT	9160	*Marketing Management*	3 S.H.
MGMT	9180	*Accounting Practices for Managers*	3 S.H.

Track B: Leadership in Public Administration and Government: select two (6 credits):

POLS	9003	*Institute for Government Decision Making*	3 S.H.
POLS	9002	*Leadership Strategies for Civic Organization*	3 S.H.
POLS	9001	*Globalization and the American City*	3 S.H.
		Total for Certificate	**5 S.H.**

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* *Work experience is sometimes considered to fulfill prerequisite requirements.*

Professional Mentoring for Teachers Certificate

The Professional Mentoring for Teachers Certificate is currently not accepting new students

Program Objectives

This Program provides teachers who wish to further their professional development through graduate course work an opportunity to develop attitudes and skills related to the role of a professional mentor.

Program Description

Through required courses and a mentoring internship, teaching professionals begin developing collegiality in relation to their profession and become more skilled in the areas of communication, peer consultation and leadership, reflection, problem solving, and evaluation.

Admissions Standards and Criteria

To apply for enrollment in the Mentoring for Teachers Certificate program, a student must submit documents as outlined in the graduate admissions section as well as:

- A copy of a valid teaching certificate/license
- MAT/GRE/GMAT exams not required

Program Requirements

The program includes course work which may, with the permission of an appropriate advisor, provide elective credits suitable for an MEd program in which the student is matriculated. Nine of the course credits are credits required of the CAGS in Teacher Leadership. With appropriate advising and planning, these credits can be applicable to such a CAGS program.

Program of Study

EDUC/ SPED	9010	*The Adult Learner*	3 S.H.
EDLM	9020	*Collegial Supervision*	3 S.H.
SPED	9200	*Consultation and Collaboration Strategies*	3 S.H.
EDUC	9360	*Mentoring Internship: Program Design, Management, and Evaluation*	3 S.H.
		Electives (e.g. EDLM 9100, SPED 7650)	3 S.H.
		Total for Certificate	**15 S.H.**

Note: Students must have completed the three required courses prior to participating in EDUC 9360 Mentoring Internship.

Certificate in Reading Specialist Initial Licensure

Program Objectives

This program defines the knowledge and skills necessary for effective assessment, instruction and leadership in the field of reading. It responds to the needs of school districts by preparing specialists in leadership roles, as well as to the needs of students with a wide range of abilities.

This certificate program provides candidates who hold initial licenses in early childhood, elementary, middle school or special education with a rigorous, research based curriculum, a range of assessment, teaching and staff development opportunities. Candidates for this program already hold a master's degree and are seeking preparation for the state licensure examination for initial licensure: reading specialist.

Admissions Standards and Critieria

To apply for enrollment in the Reading Specialist Certificate Program, a student must submit documents as outlined in the graduate admissions section as well as:

- Initial Teaching License in Early Childhood, Elementary, Middle School or Special Education
- Master's Degree
- MAT/GRE/GMAT exams are not required

Program Prerequisites

- An initial teaching license
- Children or Young Adult Literature Course
- Child Development (Child Growth and Development)
- Principles and Practices of the Teaching of Reading (or equivalent course)

Program of Study

Required Courses

SPED	8300	*Language Development, Differences and Disorders (or a comparable course)*	3 S.H.
SPED/ READ	7016	*Understanding the Structure of the English Language*	3 S.H.
SPED/ READ	7017	*Psychology of Reading, Reading Development and Disabilities*	3 S.H.
SPED/ READ	8017	*Specialized Reading Approaches*	3 S.H.
SPED/ READ	8018	*Reading Disabilities and the Assessment of Reading*	3 S.H.
SPED/ READ	8019	*Assessment of Writing Skills and Writing Disabilities*	3 S.H.
SPED/ READ	9012	*Reading Specialist: Leadership Roles*	3 S.H.
SPED/ READ	9101	*Practicum: Reading Specialist*	3 S.H.
SPED/ READ	9104	*Practicum Seminar*	3 S.H.
		Total for Certificate	**27 S.H.**

School to Career Specialist Certificate

Program Objectives

The School to Career Specialist Certificate Program is currently not accepting new students.

- Provides STC personnel with a base knowledge of the federal legislation, Massachusetts comprehensive plan and the requisite program components.
- Prepare professionals to develop, implement and sustain the school-based learning and work based learning, and connecting activities components in their schools.
- Enable specialists to acquire and use strategies for developing industry, business and community partnerships relating to school to career goals.
- Provide competencies relative to student mentoring, career assessment, portfolio development and job shadowing, and establishes and operates work based learning experiences for students away from the school setting.
- Provides the opportunity, through clinical internship, to develop and implement components of a STC program in the public school setting.

Admission Standards and Criteria

An applicant for enrollment in the school to Career Specialist Certificate Program is required to submit documents as outlined in the graduate admissions section as well as:

- an appropriate teaching or administrator certificate

Program Description

This 15-credit program is offered in the evening, in the summer and during special scheduled sessions to allow interested professionals maximum access. The course work and clinical experience requirements are delivered and supervised by graduate and qualified adjunct faculty. Practica are offered and supervised during the regular public school day and calendar.

The School to Career Specialist (STC) Certificate Program provides practicing school professionals with the base knowledge of the school to career movement, a working knowledge of the requisite components of a school program, the competencies to develop and operate a STC school component, and the techniques necessary to evaluate and sustain a quality program. It provides qualified school personnel with the ability to develop and implement three key elements of a school to career program, namely: school based learning, work based learning and connecting activities, in compliance with the School to Work Opportunities Act (STWOA).

Program of Study

A. Legislation and School to Career movement

ITEC/ PDEV	8050	*School to Career Components Seminar*	1 S.H.
ITEC/ EDLM	8100	*STWOA Federal Legislation & State Plan*	2 S.H.

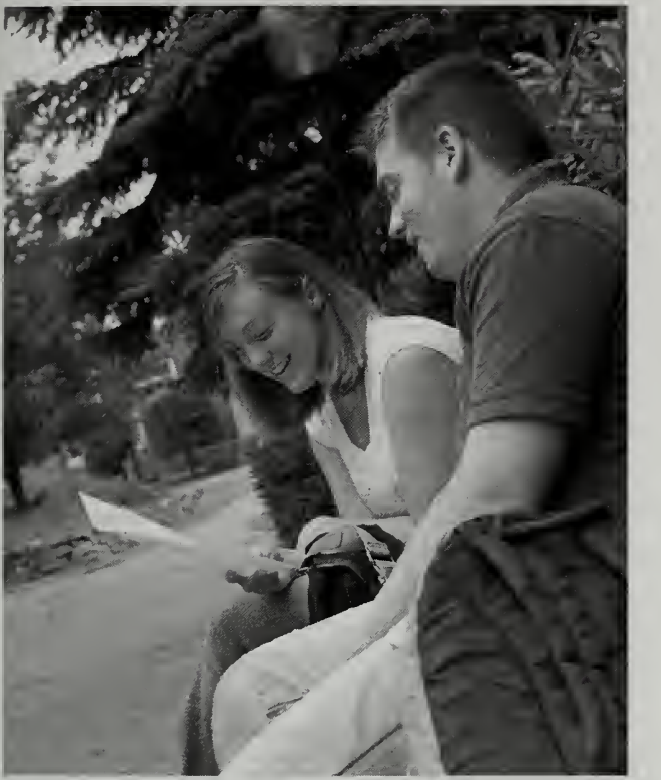
B. Knowledge Base

ITEC/EDLM/ EDUC	8250	*School to Career in the Public School Curriculum*	3 S.H.
ITEC/ PDEV	8300	*Developing STC Industry/Business/Community Partnership*	3 S.H.
ITEC/ PDEV	8350	*Career Assessment, Mentoring, Portfolios, and Coordination of Work-Based Learning Experiences*	3 S.H.

C. Application to Practice

ITEC/ EDLM	9400	*School to Career Clinical Internship*	3 S.H.
		Total for Certificate	**15 S.H**

GRADUATE COURSE DESCRIPTIONS



Fitchburg State University Course Numbering System

Undergraduate courses are numbered 1000-4999

Graduate courses are numbered 6000-9999

a. 6000-level numbers are reserved for professional development and updating courses.

b. Numbers 7000-9999 are assigned graduate courses (higher course numbers imply higher level courses).

Note: Course descriptions of all undergraduate and graduate courses can be obtained from the Office of the Registrar.

Waivers of listed course prerequisites, where granted, do not constitute waiver of required core courses or total program credit hours.

Applied Communication

Foundation of Communication Studies

COMM 7011 3 cr.

In this course, students examine origins, nature, and consequences of communication in a variety of subfields. This course reviews the roles of theory in comprehension of communication practices. Furthermore, it introduces the link between communication theory and the methodologies of communication research, including both qualitative and quantitative approaches, with an emphasis on interpretive approaches that are relevant to organizational settings.

Health Communication

COMM 7300 3 cr.

The course presents an overview of health communication theory and research addressing issues in interpersonal, small group, organizational, public relations, and use of mass media in the health care setting. Students will learn how communication professionals work within a health care setting to help the organization meets its mission of patient care.

Gender Communication

COMM 7301 3 cr.

The course introduces the principal concepts of gender-based communication. The student will explore the roles that communication plays in presentation and understanding gender roles and gender identities. Through this exploration the student will increase their awareness and understanding of interaction between genders in a variety of context as well as develop an analytic attitude toward gender and communication in everyday life.

Administration of School Library Media Centers

COMM 8000 3 cr.

Presents topics dealing with library/media services, planning centers and program management, developing and presenting budgets, record keeping, selection and acquisition of equipment and materials, computerization, and other basic management considerations that align and organize themselves with the daily operation of school library/media centers.

Organization of Learning Resources

COMM 8010 3 cr.

Broad view of the organizational facet of the media center and varied patterns of organizing, arranging, cataloging and classifying learning resources (print and non-print). The use of printed aids and commercial services, the central cataloging center, acquisition, patterns of shelving and related problems of distribution are discussed.

Interpersonal Communication

COMM 8011 3 cr.

This course explores interpersonal communication theory and will provide the student with the tools to understand and think about the communication process, methods to research interpersonal communication and skills to call upon in situated human interaction. Students work through a range of theoretical, methodological, descriptive and interpretive critical readings to reach these goals.

Intercultural Communication

COMM 8012 3 cr.

This course examines intercultural communication through communication theory which differs from other social science disciplines. The course will equip the students with tools to understand and think about intercultural communication methods to call upon in future intercultural contacts. This course will show that people experience different ways of being human because of the communication they use.

Applied Rhetoric

COMM 8013 3 cr.

This course takes place at the intersection of rhetorical theory and rhetoric in actual practice. At the convergence of theory and practice, the student will learn the methodology of rhetorical analysis through discussions, instruction and examples. Students will examine the communication practices, artifacts and environments that to a large extent comprise our lived experience.

Technology, Media Centers and Libraries

COMM 8030 3 cr.

Students will explore new technologies and their impact on schools, media centers and libraries. The courses uses the latest cataloging and circulation programs, videodisc technology, on-line services, bulletin boards, CD-ROM and facsimile machines.

Social Marketing

COMM 8114 3 cr.

Social marketing utilizes techniques from the field of marketing to address social issues mainly through changing the behavior of target groups that benefit society. The focus is on the consumer, lear ning what people need to make life changes. In this course, students will learn the techniques to design and intervene in social issues a community faces.

Communication and Social Change

COMM 8115 3 cr.

This course will explore the theories and methods that inform various social change strategies, activist projects and campaigns, along with specific examples of communication strategies used in planning, implementation, and evaluation of public health campaigns and initiatives. Students will study various communication strategies to identify the most persuasive strategies used to promote social change.

Crisis Communication

COMM 8120 3 cr.

This course in Crisis Communication emphasizes a proactive approach to planning for, managing and then responding to organizational crises by following a comprehensive crisis management process. It is intended for students in both the Applied Communication and Health Communication Programs insofar as it will emphasize the application of conceptual and substantive readings to the actual practice of crisis communication. Beginning from the assumption that all organizations should be prepared for crises, we will use a series of case studies in crisis management in conjunction with Ongoing Crisis Communication: an in depth analysis of a past organizational crisis and the communication strategies and practices that were employed in response; and your development of a Comprehensive Crisis Management Plan (CCMP) for an actual organization in your field to cultivate your own expertise in how to forecast and then develop a successful communications approach for any exigent crisis.

Advanced Studies in Childrens' and Adults' Literature

COMM 8250 3 cr.

This course is a survey of literature for children and young adults (print and non-print) including wide reading books and introduction to authors, illustrators and other media creators. It explores the nuanced ways in which language of a literary text is communicated. The course centers on a close analysis of literature, poetry, short stories and novels for children and young adults.

Writing Workshop IV

COMM 8400 3 cr.

These four courses (COMM 7000, COMM 7500, COMM 8300, COMM 8400) are individualized writing tutorials in which students work on their own projects under the direction of a writing instructor. Students, in discussion with the instructor, propose topics of interest and develop them to publishable form. Depending upon the student's interest, topics may focus on technical communication, science journalism, or appropriately related nonfiction (essays or books). Upon completion of the workshop sequence, students should have a suitable manuscript(s) ready for publication.

Philosophical and Rhetorical Issues in Professional Writing

COMM 8500 3 cr.

This course examines critical philosophical issues inherent in technical and professional writing. Adopting a historical approach, the application of various philosophical stances to the roles of jargon, syllogism, enthymeme, objectivity/subjectivity, logical proof, deconstruction and error will be examined.

Selection and Evaluation of Instructional Materials

COMM 8600 3 cr.

Students will review types of learning resources (print and non-print) found in the library media center with relation to their use, tools and criteria for selection and evaluation. The course includes related background reading, developing a selection policy and planning and building a balanced collection.

Quasselstrippe

COMM 8700 3 cr.

In this course, students examine origins, nature and consequences of communication in a variety of subfields. Students work towards developing their critical thinking competency and attain a deeper understanding of the inquiry process. As a co-learner and faculty member, the faculty member will share drafts of his/her work and thinking with the students so that they could model the scholarly process.

Topics

COMM 9000 3 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest.

Contemporary Issues in Communication

COMM 9010 3 cr.

This course assesses new technologies and potential applications within communications media and prepares students for long-range planning. Students examine the merging of machine and human intelligences within this century. The course examines the future of such developments with regard to new media technologies, interpersonal communication, and intrapersonal communication, the sense of self, and what it means to be human in the 21st century and beyond.

Media Communications Facilities Design

COMM 9020 3 cr.

This is a study of structural, technological, human and environmental parameters required for comprehensive design specifications for new or renovated facilities as applied to media production and/or utilization. Students become familiar with blueprint reading, power requirements, electrical distribution, low voltage networking, heating and air conditioning, lighting, ergonomic design, OSHA and other safety codes and requirements. Emphasis is placed on analyzing vendor proposals and contracts.

Instructional Design and Analysis in Communications Media

COMM 9030 3 cr.

The course introduces the design of educational and training programs and prepares students to conduct needs and task analyses, write measurable objectives, select appropriate media and delivery systems and evaluate effectiveness of results.

Health Care Management Capstone

COMM 9050 3 cr.

This course is aimed at providing students with the opportunity to integrate the knowledge and competencies they have acquired while studying in the certificate program in health care management. It is also an opportunity for students to design a program, policy, change, or other intervention in the organization where they are employed to bring about meaningful change and respond to a "real world" issue they have experienced firsthand. By working on a capstone project they should draw on prior course work and utilize their critical thinking skills in synthesizing previous course work and extend and develop their own original ideas.

Managing the Documentation Life Cycle, Part I
COMM 9071 3 cr.

This course is a study of internal communications problems associated with the design and development of information products. Students analyze documentation teams, DOC plans, corporate style guides, government and military standards, and interpersonal work style preferences for their impact on the documentation life cycle.

Persuasion in Context: Communications for Marketing, Advertising, and Public Relations
COMM 9072 3 cr.

This course exposes students to the theories, strategies and techniques of designing managed communications campaigns for marketing, advertising, and public relations professions. Students will explore relevant communication theories of persuasion and past practices in professional persuasion contexts. Based on their developing understanding, students will form small entrepreneurial design teams to create and evaluate campaigns for clients of their choosing. Final designs will be presented formally in appropriate written and oral forms.

Managing the Documentation Life Cycle, Part II
COMM 9080 3 cr.

This course is a study of external communications problems associated with the design and development of information products. Students examine document design, document maintenance, editing and production problems, desktop publishing, online documentation, and interactive communications systems for their impact on the document life cycle.

Communication Research Methods
COMM 9110 3 cr.

Students examine the various research tools and methodologies used in the communications field to produce a viable thesis proposal. Students are familiarized with methods of content analysis, audience research, needs assessment, and the use of statistical procedures to quantify value and variable measurement. The value of research conducted by others is recognized as a tool in conducting one's own research.

Legal and Ethical Issues in Communication
COMM 9120 3 cr.

This course examines some of the large issues that face the communications field and considers how the law and one's ethical standards may address these issues. Rather than a review of the law, the course encourages students to think about how the law requires action or inaction and why. Various models for ethical and legal decision making are examined as well.

Organizational Communication
COMM 9130 3 cr.

This course provides a perspective on the internal politics, legal regulations and organizational strategies for communication within an organization. Issues such as corporate culture, change, cultural diversity and leadership are addressed. This course analyzes communication theory and how it effects behavior of the members of an organization. Communication is an essential aspect of organizational functioning and the majority of managerial problems are rooted in communication. This course examines the major theoretical and practical aspects of communication in organizations as they apply to business and governmental contexts.

Practicum in Communication
COMM 9200 6 cr.

This course is a practical experience in which students apply knowledge and skills in a real-life problem-solving situation. Students receive first-hand experience in identifying the problem, setting the parameters, planning for the application of human and technological resources, and evaluating the outcome. A mediated oral presentation of the project is made to the sponsoring organization and to the graduate advisor.

Prerequisites: COMM 9110 and permission of advisor.

Thesis in Communication
COMM 9980 6 cr.

This is an empirical study of a proposition stating the relationship between two or more concepts, phenomena or events. This critical analysis focuses on a current or potential problem or practice facing managers of business, industry, government, and health service media centers. The study includes a research procedure for the tabulation, statistical analysis and interpretation of numerical data.

Prerequisites: permission of advisor and COMM 9110.

Biology

Biology of Mammals
BIOL 7001 3 cr.

This course is an investigation of the evolution and present biology of mammals involving extensive use of native New England species. Laboratory work includes identification of mammal species from skins, skulls, and tracks. Field trips enhance familiarity with what is learned in the classroom. The course involves four hours of lecture/laboratory plus additional hours for field trips.

Freshwater Biology
BIOL 7003 3 cr.

This is a field study course designed to study aquatic ecological systems. Daily field trips are taken to the lakes, ponds, streams, and rivers in the Fitchburg area to collect water samples and specimens. Laboratory analysis is conducted to determine the physical and chemical properties of the water and to identify and study the organisms.

Biology of the Brain and Behavior
BIOL 7005 3 cr.

This course focuses on the biological bases of behavior. A variety of media, including lectures, journal articles and films, are used to study ethology, psychology, neurobiology and genetics in an attempt to understand the mechanisms underlying behavior.

Prerequisite: one semester of any of the following: General Biology, General Psychology, Anatomy and Physiology or instructor's permission.

Medical Parasitology
BIOL 7006 3 cr.

The course examines the biology of medically important animal parasites. Lectures emphasize clinical considerations, such as life cycles, modes of transmission, epidemiology, symptomatology and treatment. Additionally, methods of collection and identification are explored.

Ecology
BIOL 7007 3 cr.

The dynamic relationship between organisms and their environment is investigated in this survey of major ecological concepts and methodology. Field and laboratory work emphasize problem identification, formulation of hypothesis, data collection, and analysis and interpretation of results in terms of biological implications.

Winter Botany
BIOL 7008 3 cr.

A comprehensive study of plants in winter designed to discover plant adaptations for survival during the cold season. Field trips are taken to observe and identify trees and herbaceous plants in winter conditions. Lectures and indoor labs are included.

Model Systems and Techniques in Embryology
BIOL 7009 3 cr.

This is an intensive laboratory course emphasizing embryological and developmental biological techniques. Current theories regarding the molecular mechanisms underlying early development and classical developmental processes will be the major themes. Topics include regeneration, metamorphosis, aging, organogenesis and pattern formation. Lecture will be followed by laboratory study of the development of live sea urchins, amphibians and planaria, as well as work with prepared slides.

Prerequisite: BIOL 1200, 1300, 1400, 1600 or permission of instructor.

Techniques in Neurohistology

BIOL 7010 3 cr.

This course introduces basic neurobiology as well as the current techniques in neurohistology. The students will work with neural tissue provided by the University of Massachusetts Medical School. This material will be fixed, imbedded in paraffin, cut, stained, and mounted. The student will prepare a complete personal set of slides. The techniques require patience and discipline, and provides the student with a unique experience regarding the structure of the brain.

The Modern Secondary School

BIOL 7012 3 cr.

This class is required of all MAT candidates who do not have initial licensure to teach and covers a broad range of issues faced by teachers in today's secondary schools. Students become familiar with the complexities and demands of secondary school teaching. This course includes 25 hours of prepracticum experience.

Summer Field Botany

BIOL 7200 3 cr.

This course is a field study of trees, shrubs, fungi, mosses, and herbs found in New England. Daily field trips to collect plants and daily laboratory work facilitate the study of ecology and taxonomy of plants.

Evolution

BIOL 7300 3 cr.

This is an introduction of the principles governing the evolution of living organisms. Emphasis is placed on the cause and affect relationship of various biological disciplines on the evolutionary process. A survey of paleontological evidence demonstrates how evolutionary principles have influenced life.

Prerequisites: undergraduate course in botany or zoology, ecology, and genetics.

Bioethics

BIOL 7400 3 cr.

The purpose of this course is to communicate the process of ethical reasoning in conjunction with biological science. Students gain an understanding of how cooperation between those concerned with the results of biological research and the makers of public policy must become a working hypothesis. Through an examination of the current literature, students uncover facts and general principles of bioethics and relate their near and long term consequences to moral positions.

Marine Biology

BIOL 7600 3 cr.

This course examines physical, chemical, and biological factors in the marine environment. The dominant animals and plants in salt marsh, sand beach, tide pools, and a rocky inter-tidal area are investigated. Data on physical and chemical conditions is collected and correlated with the composition, behavior, and physiology of the flora and fauna within each habitat. Saturday or Sunday field trips supplement lectures.

Advanced Methods of Teaching at the Secondary Level

BIOL 8000 3 cr.

This course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: BIOL 7012 or initial teacher licensure.

Independent Study

BIOL 8002 3 cr.

The independent study provides an opportunity for biology students to work independently on the development of a written work, a science curriculum, a job related document or some other activity agreed upon by the student and the graduate faculty advisor. The final product of this study is a written or otherwise permanent documentation of the study completed.

Practicum

BIOL 8003 6 cr.

The practicum provides an opportunity for students to gain teaching experience in area schools and in the university campus school. Practicum experience is designed to meet the state requirements for advanced provisional teacher certification.

Practicum

BIOL 8090 6 cr.

Student teaching experience is offered to give practical classroom experience to those degree students who have not satisfied the state requirements for certification.

Curriculum and Technology

BIOL 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. The course also explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues.

Curriculum Design and Development

BIOL 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Research in Biology

BIOL 9004 3 cr.

Students will carry out research in a specific field of Biology that involves an in-depth exploration of a well-defined problem. The student must develop a hypothesis for the possible solution to the problem; develop the experimental technique to test the hypothesis, and develop a logical conclusion based upon the data collected. The final product is a written documentation of the research and results. Each study is done under the supervision of graduate faculty.

Thesis in Biology

BIOL 9010 3 cr.

Students will conduct a research project that will result in a thesis. This thesis will be developed under the supervision of a thesis advisor and a thesis committee of at least three people.

Seminar in Biology

BIOL 9011 3 cr.

This course is designed to prepare students for research careers. Topics covered are hypothesis formation, experimental design, literature searches and quantitative methods. Emphasis is placed on student participation and evaluation of each topic. A final research proposal is required of each student.

Action Research Internship

BIOL 9012 3 cr.

The Action Research Internship is a capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. A research project is completed during the duration of the internship, and the final product is a Biology Action Research Teacher Work Sample.

Special Topics

BIOL 9100 3 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline. It depends upon student and faculty interest.

Clinical Experience

BIOL 9400 6 cr.

Clinical Experience is a capstone course allowing full integration and application of content knowledge and pedagogical theory and practice. In a high school classroom students incorporate all standards specific to the discipline of biology as well as all common standards for classroom teachers. A minimum of 400 clock hours or one full semester on-site under the auspices of the university is fulfilled. A research project is completed during the duration of the clinical experience.

Internship

BIOL 9500 6 cr.

The internship is a capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. Within the individual's classroom it incorporates all standards specific to the discipline of biology as well as all common standards for classroom teachers. A minimum of 400 clock hours or one full semester on-site under the auspices of the university is fulfilled. A research project is completed during the duration of the internship.

Internship in Biology

BIOL 9501 1-6 cr.

The internship provides laboratory or field experience in conjunction with established biological programs at cooperating non-profit, governmental, industrial or private institutions. The institutional program directors and faculty from Fitchburg State University share supervision of the student. The nature of the final evaluation will be determined jointly by both the on and off campus supervisors.

Computer Science

*Asterisk indicates that the course is offered infrequently.

*Programming under UNIX in "C"

CSC 7000 3 cr.

This is an advanced level programming course exploring the C language, emphasizing I/O processing in the UNIX environment. Students will improve their C programming skills while exploring many of the resources made available by modern implementation of UNIX.

Prerequisite: CSC 2560.

Computer Engineering

CSC 7011 4 cr.

This class covers the conceptual and practical aspects of computer systems with emphasis on programmable hardware. Topics to be discussed are: electrical theory, electronic devices, digital logic, computer architecture and low-level microprocessor programming and interfacing.

Advanced Mathematics for Computer Scientists

CSC 7013 3 cr.

This class covers mathematical foundations of computer science as well as mathematical applications in computer science. Modern analysis, linear algebra, mathematical logic, number theory and discrete mathematics will be discussed to highlight their importance for computer science.

The Practice of Computer Programming

CSC 7014 3 cr.

This class covers some of the practical aspects of software engineering through a project based approach which builds confidence and competence in a variety of computer programming paradigms.

Prerequisites: CSC 1550 and CSC 2560

Theory of Computation

CSC 7050 3 cr.

This course provides an introduction to theoretical computer science. The course covers the fundamentals of automata theory, formal languages and computability theory. Several distinct models of computation, including the Turing Machine, will be introduced. The concepts of computability, decidability and reducibility will be explored.

Operating Systems and Networking

CSC 7132 3 cr.

This course covers the concepts, structure, and operation of modern operating systems and networking. Topics covered include: process management, scheduling, deadlock, memory management, virtual memory, networking, network security, and operating systems in network environments. A working knowledge of a higher-level system programming language and computer data structures is assumed.

Prerequisites: CSC 1550 and CSC 2560

*Software Development in Computer Graphics

CSC 7160 3 cr.

This course is about developing in large-scale computer graphics package starting with low-level algorithms and using standard modularization and integration techniques practiced in industry. The course provides an in-depth introduction to state-of-the-art interactive computer graphics algorithms with special emphasis on the GKS standard. 2-D and 3-D viewing, clipping and geometric modeling will be studied. Raster extensions and mathematical algorithms will be presented.

Prerequisite: CSC 2560

Object Oriented Programming

CSC 7200 3 cr.

This course introduces object oriented programming and object oriented design paradigms. Students are expected to have previous exposure to C and another object oriented programming. Topics covered include classes, polymorphism, encapsulation and inheritance, input/output streams, templates, exception handling, file processing and standard template library.

Prerequisite: CSC 1550

Data Communications and Networking

CSC 7255 3 cr.

This course covers data communications principles, emerging networking technologies and local and wide area networks. Signal transmission analysis, modulation concepts, modems, multiplexers, digital technologies and various transmission models will be extensively discussed. Network protocols will be presented including TCP/IP protocol suite and IEEE 802 standards. Network technologies such as ISDN, xDSL, SONET, packet switching networks, Ethernet and ATM will also be discussed.

Object Oriented Analysis and Design

CSC 7400 3 cr.

This course introduces the software engineering principles used in the development of large software products. Topics such as requirements engineering using use cases, systems and software analysis using object-oriented principles, software design using class diagrams and implementation using CASE tools are covered. Project management issues are also introduced.

Prerequisite: CSC 1550

Database Design

CSC 7500 3 cr.

This course covers concepts of database systems in general and relational database systems in particular. The techniques for database modeling and the concepts of Structured Query Language (SQL) will be studied. The issues involved in the design, implementation, maintenance and security of relational databases will be discussed.

Embedded Systems

CSC 7600 4 cr.

This class covers some of the conceptual and practical aspects of microcontroller-based computer system development. Topics to be discussed are: microcontroller architecture, system specification, interrupt servicing, devise driver design, serial I/O protocols and real-time data processing.

Prerequisite: CSC 7011

Client/Server Networking

CSC 8020 3 cr.

Client/server architecture is the standard used in most network applications today. The course is structured to dynamically cover the latest Internet technologies and latest terms and design methodologies used in client/server applications. A final project will include concepts from file systems, CPU scheduling, memory management, virtual memory, distributed computing, concurrency and security. Topics covered include client/server architecture, BSD and Windows socket programming, concurrency/deadlock, HTTP server overview, CGI/Servelets/SOAP, file system interface, Internet proxies, network management and utility classes.

Design and Analysis of Algorithms

CSC 8050 3 cr.

This course introduces the concepts of computational complexity and the complexity classes P and NP. Topics covered include sorting and searching algorithms, graph algorithms, string matching, NP-completeness problems and dynamic programming techniques.

Prerequisites: CSC 1550 and CSC 2560.

Local Area Networks

CSC 8120 3 cr.

The purpose of this course is to study new techniques in the theoretical design of local area networks, as well as to gain practical experience in the installation, maintenance and management of LAN networks. Security topics, including firewalls, proxy servers and privacy management, will be studied extensively.

Prerequisite: CSC 7255.

Windows Programming

CSC 8180 3 cr.

This course focuses on the development of Windows applications. Students will learn application framework fundamentals and the documentation / view architecture of a Windows application program. Concepts such as Dynamic Data Exchange (DDE) and Multiple Document Interface (MDI) will be implemented. Student projects will include creating application programs that include dialog boxes, pull-down menus and printing options.

Prerequisite: CSC 7200.

*UNIX Network Programming

CSC 8190 3 cr.

This course is designed for experienced C programmers who have no previous network programming experience under UNIX platform. The course includes Ethernet, the TCP/IP family of protocols, sockets, virtual circuits, datagram circuits and programming concepts. Project using the BSD socket interface will be developed in the course.

Prerequisite: CSC 7000.

Advanced Java

CSC 8205 3 cr.

This course covers the emerging and advanced Java technologies used in the 3-tier architecture. Various Swing components used for the front-end user interface, Servelets and JSP used on the Web server and JDBC used for back-end database connectivity are studied extensively. The course begins with a quick review of major topics in object-oriented programming as implemented by Java.

Prerequisite: CSC 1550

Advanced Network Technologies

CSC 8255 3 cr.

This course covers the emerging and advanced network technologies and architectures such as Fast Ethernet, Gigabit Ethernet, Fiber Channel, Virtual LAN, frame relay, SONET and broadband ISDN. Other concepts such as quality of service, packet over SONET, Multiprotocol Label Switching, Digital Subscriber Line and Voice over IP will also be discussed.

Prerequisite: CSC 7255.

Advanced Operating Systems

CSC 8280 3 cr.

This course provides a high-level review of different responsibilities of an operating system with an emphasis on coding practices of a popular operating system. Major functional components of a modern operating system such as file systems, CPU scheduling, memory management, virtual memory, secondary memory management, concurrency and security will be studied.

Prerequisite: CSC 7132.

Topics in Computer Science

CSC 7600, 8600, 9600 3 cr. each

The objective of the topics course is to study a topic of current interest in computer science. The course serves as a vehicle for curriculum experimentation and/or enrichment. The course of study should provide an understanding of some current advance in computer science and/or greater understanding of a particular topic that is of current interest.

Prerequisites depend on the topic of study.

Internship

CSC 8901 1- 3 Cr.

A three credit on- or off-campus internship requires 12 hours of work each week for 15 weeks. Students apply their knowledge and skills to develop practical solutions to computer science or information technology problems. Approval by graduate chairperson is needed to register for this course. A written report on the work done in the format specified by departmental policy must be submitted to the chairperson to receive a grade.

Prerequisites: 12 S.H. graduate courses in computer science.

Independent Study

CSC 9000 3 cr.

The independent study provides an opportunity for highly motivated students to explore advanced areas of computer science not provided within the departmental curriculum. Approval of the faculty sponsor, consent of the advisor and permission of the chairperson are required.

Prerequisites: At least 18 S.H. graduate courses in computer science and an overall GPA of at least 3.0.

Master's Thesis I & II

CSC 9010, 9011 3 cr. each

Students conduct a research project resulting in a thesis. Thesis develops under the guidance of a thesis supervisor and thesis committee. Thesis must be developed and presented according to the guidelines set forth by the university and the department.

Prerequisites: 18 S.H. graduate courses in computer science and overall GPA of at least 3.0.

Thesis Continuation I & II

CSC 9012, 9013 3 cr. each

Students that need more time to complete the thesis can register for up to two thesis continuation courses. The credits in these courses may be used for maintaining full-time status, but do not count toward the total credits required for the degree.

Prerequisite: CSC 9011

*Graph Algorithms

CSC 9050 3 cr.

This course introduces various graph algorithms such as shortest path, depth first and breadth first searches, minimum spanning trees, graph connectivity and network flows and graph coverings and colorings. Graph problems are analyzed for the existence of polynomial time algorithms.

Prerequisite: CSC 8050.

Directed Study

CSC XXXX

Directed study allows a student to carry out a non-research project or participate in an activity under the direct supervision of a faculty member. In exceptional circumstances, it can be used to offer an existing course to an individual student. All directed studies require approval of faculty sponsor, advisor, program chair and dean of graduate and continuing education.

Prerequisite: At least 9 S.H. of graduate courses in Computer Science, and any course prerequisites for the course the directed study is used for.

Creative Arts

Methodologies in Furniture Construction

CRAR 7103 3 cr.

The purpose of this course is to familiarize the student with basic traditional woodworking techniques, employing both hand tools and power machinery. These techniques will include joinery necessary for the leg and rail construction of a table. Concurrently, students will develop personal creativity and design sensibility with wood as the primary medium. (Crafts distribution course) Available only at Worcester Center for Crafts.

Drawing & Design of Crafts

CRAR 7104 3 cr.

This class focuses on using drawing and sketching to evolve ideas and develop visual language. Students will learn how to record thoughts, develop sketches, work through ideas and create gestural and dimensional attributes for 3-D objects on a 2-D surface. (Crafts distribution course) Available only at Worcester Center for Crafts.

Survey of Fiber Arts

CRAR 7105 3 cr.

Students will be introduced to five different fiber-related technique—textile printing, dyeing, papermaking, felting and weaving—using an historical, cultural and hands-on approach. Through sample making, research and discussion, students will learn how to apply these and other techniques to their classroom art curriculum. (Crafts distribution course) Available only at Worcester Center for Crafts.

Survey of Handbuilding Techniques

CRAR 7106 3 cr.

This course provides students with an understanding of clay working by exploring forming techniques with an emphasis on the development of students knowledge of the material and handling characteristics of clay. Students will be challenged to develop their personal vision and expression through surface enrichment, stamping, carving and slip decoration. (Crafts distribution course) Available only at Worcester Center for Crafts.

Survey of Kilnforming

CRAR 7107 3 cr.

This course explores three traditional glass techniques: fusing, slumping and casting. Projects include creating bowls, plates and jewelry as well as kiln casting glass particles into molds. (Crafts distribution course) Available only at Worcester Center for Crafts.

Creative Teaching

CRAR 8140 3 cr.

This course applies creative problem solving techniques and the arts to other content areas of the curriculum. This course is part of the initial licensure track, all majors.

Celebrating Diversity through the Arts

CRAR 8145 3 cr.

The course is a study of methods used for balancing Euro-centric cultural backgrounds; celebrating cultural diversity through the arts; building respect and understanding through cultural grid systems; creating harassment-free learning environments; teaching without gender bias and understanding, discussing, and preventing classroom sexism, racism, anti-Semitism, and homophobia.

Arts Technology in the Classroom

CRAR 8146 3 cr.

This lab experience provides professional development in the arts technologies. Emphasis is placed on integrating these exciting tools into varied learning. Topics include both visual arts and music applications such as digitized images, digital sound, scanners, synthesizers, video overlay card, MIDI laser discs, sequencers and sound design. This course is a must for educators from all disciplines and levels. No prior technology expertise required.

Advanced Graduate Studio

CRAR 8150 3 cr.

The building blocks—value, alternation, shape, balance, dominance, graduation, depth and focal point—are used to develop a personal method of application. It will allow the student to make self diagnosis, prognosis and treatment of their own maladies in their works of art to allow for successful completion of their own intentions in their artwork.

Prerequisite: Approval from the graduate program chair.

Music Learning Theory and Creativity

CRAR 8200 3 cr.

A study of Gordon's learning theory of music aptitude, achievement, and testing and its relationship to musical creativity. After learning and performing basic rhythmic and tonal patterns students apply this knowledge and skill in creating compositions. The similarities and differences among the terms discovery, creativity and improvisation are discussed and experienced in a variety of music projects. The importance of creativity and improvisation in Gordon's skill learning sequence are discussed and experienced in depth.

Dance in Education

CRAR 8350 3 cr.

An exploration of the field of creative movement and structured dance forms is part of this course. Students learn applications for working with children through movement and are encouraged to seek personal dance experiences.

Art and Human Development

CRAR 8500 3 cr.

This course is applicable to students who are in human services fields, including diverse groups teachers, social workers, recreation directors, religious educators and others. Students use hands-on activities to demonstrate how concepts and practices are learned and to facilitate students' needs.

Supervising, Directing, and Leading in Arts Education I

CRAR 9051 3 cr.

The course involves discussions about inter-departmental and interdepartmental relations, faculty development, grants, community relations, the diversity of a community, the needs of exceptional learners and other administrative concerns.

Supervising, Directing, and Leading in Arts Education II

CRAR 9052 3 cr.

The course involves of discussion of such topics as the efficient and humane use of personnel, finance, curriculum, and physical resources. The evaluation and supervision of programs and personnel is also covered.

Creative Arts Research

CRAR 9060 3 cr.

Studies include an inquiry into the role of the creative process in education and the arts, as well as the integration of the arts in education. Research into the cultures of various community groups and the inclusion of exceptional learners in the educational process are considered.

Drama in Education

CRAR 9065 3 cr.

Participants develop teaching skills they can apply to their own work and personal skills that explore drama as an expressive medium. Through a special project, students have the opportunity to explore a range of arts media, their relationship to one another, the learning process, and academic achievement.

Creative Arts Curriculum Development and Applications

CRAR 9070 3 cr.

This course is designed to help aspiring leaders understand how to develop and implement systemic K-12 fine arts curriculum, instruction and assessment.

Arts Presentation

CRAR 9090 3 cr.

Students create a culminating project after completing at least 18 semester hours in the degree.

Prerequisite: CRAR 9070.

Criminal Justice

The MS in Criminal Justice Program is currently on hold and therefore courses are not being offered.

CORE I

Foundations
CJ 7200 6 cr.

Students must register for this six credit CORE which includes the following modules of study:

Criminal Justice Process
CJ 7240

This area of study explores the organization and function of the criminal justice system.

Social Relations and the Legal System
CJ 7260

This course explores law as a social process that is both a source of order and of conflict.

Criminology
CJ 8530

An examination is conducted of the historical development of criminological theories, including the Classical School of the 18th century, the Marxist and Socialist Schools of the late 19th century, and contemporary theories of the 20th century. Emphasis is on social, political, economic, religious, racial, gender and emotional characteristics of crimes and offenders.

CORE II

Applications in Criminal Justice
CJ 8400 6 cr.

Students must register for this six credit CORE which includes the following modules of study:

Research Methods
CJ 8430

This course of study allows the student to develop competencies in understanding, analyzing and questioning research findings. Basic techniques and knowledge are introduced to assist the student in locating, understanding, and using resources relevant to legal analysis of the law, measurement of crime and criminal behavior, and interpretation of research findings.

CORE IIB

Applications
CJ 8500 6 cr.

Includes the following six course titles:

Administration and Organizational Development
CJ 8540

This component increases the students' awareness of organizational dynamics by providing them with the skills to analyze organizations and to learn to view them from several frames of reference.

Contemporary Issues
CJ 8560

The course examines current social trends as they confront the criminal justice professional in the field, in institutional settings and in the courts. Students explore contemporary theories and responses to emotionally demanding issues that challenge the community and the criminal justice system, as well as the strategies for responding to these problems.

Ethical Issues in Criminal Justice
CJ 8580

This course includes an examination of major ethical issues that span the components of the criminal justice system. Students will explore the ethical challenges and ensuing dilemmas that occur in daily professional work along with strategies for responding to job situations.

Program Evaluation and Statistics
CJ 8590 3 cr.

This course provides an introduction to elementary statistical methods as applied to problems in crime and criminal justice. It is an introduction to descriptive statistics exploratory data analysis, probability theory, inferential statistics and program evaluation. Its purpose is to enable students to do empirical statistical work, as well as to intelligently and critically read academic publications. Even if students do not plan to do quantitative work after graduation, understanding the theory and limits of statistical analysis is important given its prevalence in criminal justice.

Professional Studies Track

Legalities of Criminal Justice Administration
CJ 9620* 3 cr.

The course examines contemporary issues facing criminal justice administrators and explores the legal considerations necessary in determining sound managerial solutions. Topics of discussion include the legal implications of employee hiring, training, promotion, and discipline; internal investigations; discrimination challenges; affirmative action plans; labor relations and unions; and the development of departmental policies and procedures. Students examine each topic within the realm of relevant state and federal law. This course is especially fitting for practitioners who are faced with policy-related decisions in the criminal justice field.

Professional Issues: Liabilities and Challenges
CJ 9660* 3 cr.

This course clarifies the ideological conflicts—from enforcement to rehabilitation—that may be encountered by the criminal justice practitioner. Through case studies, this course focuses on the legal and ethical responsibilities of the criminal justice professional including liability standards and philosophies of practice, and professional ethics. Attention is paid to the invisible effects of discretion as a part of the decision making process.

Cultural Diversity and Communication
CJ 9680* 3 cr.

This course reviews individual and group models of relationships between criminal justice agencies and the public, with emphasis on gender, race and ethnic differences. Special attention is paid to areas of potential conflict and cooperation with distinctive cultural groups. Alternative dispute resolutions are emphasized, including problem solving, negotiation, meditation and conflict resolution strategies.

CORE III

Theory and Practice/Capstone Experience
CJ 9800 6 cr.

Option I: Internship
CJ 9820

The Capstone Internship is a supervised, field-based (300 hours) learning experience in an approved criminal justice agency. Responsibilities can include administration, case/clinical work, training and development or research. The student is responsible for systematically applying theoretical concepts in an applied and practical way to the work of the organization and contributing to the goals of the criminal justice system. Placement is facilitated through the Field Placement Office, Department of Behavioral Sciences, in accordance with departmental policies. The internship is monitored by a faculty member who conducts on-site evaluations of the student's skills and competencies. Students are required to meet as a group in a seminar class; assignments include a paper discussing a literature review of relevance to the internship and a discussion of the application of the literature to the field experience.

Option II: Project

CJ 9840

The Capstone Project is a significant undertaking appropriate to the criminal justice field and reflects originality and independent thinking. The project must be a systematically organized effort with appropriate form and methodology. Projects may vary considerably from developing a prototype service/program to undertaking a media project. A written abstract is required and includes an articulated rationale, explained significance of project, identified objectives and conclusions/ recommendations. The student works under the supervision of a faculty member and in cooperation with an approved criminal justice field site. The focus of the project must be approved by the Graduate Committee on Criminal Justice.

Option III: Thesis

CJ 9860

The Capstone Thesis is supervised, systematic research or analytical study of a significant problem/issue, which results in an original, written product. Students are challenged to think independently and critically throughout the process of developing the study. The paper must reflect an organized effort with an appropriate and useful format through which to discuss a comprehensive review of the literature, problem identification, assumptions, significance of the study, sources and methods of gathering and analyzing information, and conclusions/ recommendations. The student works under the supervision of a faculty member, and the topic of the thesis must be approved by the Graduate Committee on Criminal Justice.

Seminar

CJ 9880

All students participating in the Capstone experience, regardless of the option chosen, meet together in a seminar class. Students share scholarship from their works in progress and discuss issues related to their Capstone experiences. Faculty facilitate the discussions and oversee the students' work. At the end of the Capstone experience, students present the results of their internship, project, or thesis to the entire Capstone group.

Early Childhood/Elementary/ Middle School

Writing to Learn

EDUC 7001 3 cr.

This research-based course is designed for classroom teachers, administrators, curriculum coordinators, Chapter I, ELL, bilingual, and special needs teachers who want to involve themselves in the writing process and become more knowledgeable about the teaching of writing.

The Culture of the School

EDUC 7002 3 cr.

This course teaches prospective administrators how to create a more flexible culture focused on problem solving, learning, and successful communication in their school/school district community. Prospective administrators learn how to recognize what can be mandated and when mandate make sense, what is susceptible to problem solving and when issues are best dealt with collaboratively, how and when to focus on instructing members of the school/school district community, and how and when not to intervene. There is a particular focus on strategies and techniques for problem solving, collaborative work, and successful instruction of adults.

Educational Issues in Child Development

EDUC 7003 3 cr.

This core course develops the teacher candidates' capacities to integrate knowledge of child growth and development with the imperatives of state and federal mandates regarding services to all children and pertinent educational issues in order to assure children's success in school. Course content explores human growth and development from birth to age 18 with special attention to English Language Learners, children with special needs, and children of diverse backgrounds. How children develop as thinkers and learners at different points in development is emphasized. Candidates seeking their initial license complete a field experience. Credit cannot be given for both EDUC 7003 and EDUC 7300. This course is part of the initial licensure track, early childhood and elementary.

Cooperative Learning Structures and Strategies in the Content Area

EDUC 7004 3 cr.

This is a comprehensive course in cooperative learning designed to provide an in-depth look at a variety of instructional practices and strategies appropriate for effective teaching and learning in the inclusionary and heterogeneous classroom. Learning objectives are pertinent for all disciplines. Class projects align with the requirements of state and national standards.

Bureaucracy in Education

EDUC 7005 3 cr.

This course focuses on how participants have experienced school – as students, as teachers, and as leaders – and how the organization of schools and districts creates those experiences. The rules under which schools operate, the intention of the educational reforms and movements that underlie those rules and the interaction between those rules and individual goals are examined. The course requires writing similar to that required in schools and districts as well as writing that draws on students' experiences with schools.

Developing Interdisciplinary Content Learning Centers: Incorporating Cooperative Learning Strategies

EDUC 7006 3 cr.

This course explores the variety of methods and materials inherent in developing multi-level, multimedia content learning centers. The focus will be on integration in a variety of curriculum areas including math, science, language arts, reading, social studies and the arts. Participants develop an interdisciplinary content learning center to be used in a classroom setting. Techniques for effectively incorporating essential skills and knowledge of selected content areas, as well as cooperative learning strategies into the implementation of these centers, will be explored. Scheduling and evaluative techniques are integral parts of the focus in this K-12 course.

Developing Math Materials to Differentiate Instruction

EDUC 7007 3 cr.

This course involves the construction and use of multi-level, multimedia Math materials for classrooms from grades K-12. Curriculum resources will be shared for a range of learners and we will discuss how to differentiate instruction. A wide spectrum of methods, activities and materials, pertaining to a variety of strands of Math, will be presented and examined. Connections will be made to Massachusetts Curriculum Frameworks. We will discuss the NCTM standards and expectations. Examination of objectives and outcome strategies used to meet a wide range of abilities in the teaching and learning of Mathematics will take place. Participants will have an opportunity to create, adapt, design and construct Math materials to use in their own classrooms when differentiating instruction. Testing, assessment and evaluation, in the area of Mathematics, will be incorporated. This practical, hands-on course will also provide a variety of strategies for scheduling and implementing materials designed by participants. Innovative ideas will be shared to reinforce Math as an exciting subject.

Construction and Use of Reading Materials

EDUC 7008 3 cr.

Participants will be involved in the research, design and construction of a variety of materials used in the teaching of Reading and Language Arts. A multitude of resources, methodologies, materials and strategies, pertaining to various levels of learners and how to differentiate instruction, will be presented and examined. We will make connections to Curriculum Frameworks and higher order thinking skills. The instructor will demonstrate many activities and materials previously designed and implemented in the classroom to develop and enhance the teaching and learning of Reading and Language Arts. The participants will have an opportunity to design and construct materials that meet their individual teaching needs. Scheduling, assessment and evaluation techniques will also be discussed. Learning Centers will be referenced and demonstrated. This hands-on, fast paced course will provide a balance between creative and practical approaches to the teaching and learning of Reading.

Cultural Diversity and Urban Teaching

EDUC 7009 3 cr.

This course is designed to generate an understanding of culturally responsive teaching and the development of expert practice in working with diverse racial and ethnic student populations. Expert practice includes all professional and instructional activities that facilitate student learning. Participants will analyze and discuss research on culture, cultural identity and community-writ large- the sociological, political, racial and economic factors that impact society and writ small-how race ethnicity and SES impact the lives and learning of urban students with a focus on Lowell students.

Storytelling in the Curriculum

EDUC 7010 3 cr.

This course will address storytelling and its relationships to today's multicultural classroom. The use of oral history projects and the use of folklore in the curriculum is explored. Emphasis will be on promoting storytelling in the classroom. Current theory on the relationship of oral and written language acquisition will be reviewed. Storytelling, self-esteem building, healing and creative conflict resolution techniques for the classroom will be discussed.

Middle School Structures and Curriculum

EDUC 7013 3 cr.

This course introduces candidates to the historical development, philosophy and competencies needed to teach in the middle school. The course defines curriculum as everything a young adolescent experiences at school. With this in mind, candidates will explore, analyze and design middle school structures and curriculum with special attention given to interdisciplinary, thematic planning and instruction. Emphasis is placed on structures and curriculum responsive to young adolescent developmental diversity and needs. Candidates seeking initial licensure complete a field experience. Credit cannot be given for both EDUC 7013 and EDUC 8150. **This course is part of the initial licensure track, middle school.**

Reading and Writing in the Content Areas

EDUC 7014 3 cr.

This course examines the reading and writing processes as it pertains to the teaching and learning of knowledge and skills within content disciplines. It includes an exploration of the relationships among reading, writing, critical thinking and learning; discussion and designing of current assessment tools, including portfolio; and analysis of, development of, and implementation of reading and writing strategies and procedures which` develop student capacity for using reading and writing to think critically and to learn and understand content. Candidates seeking an initial license complete a field experience. Credit is not awarded for both EDUC 7014 and EDUC 8132. **This course is part of the initial licensure track, middle school.**

Language Arts and Literacy in Elementary Education

EDUC 7015 3 cr.

This specialized course in language arts and literacy at the elementary level focuses on language development, the reading/writing processes, and balanced literacy instruction. Classroom research-based strategies and curriculum, including those that integrate the fine learners, including English Language Learners and children with special needs, will be emphasized. Candidates seeking an initial license complete a field experience. Credit cannot be given for both EDUC 7015 and 7222, 8400, or 8450. **This course is part of the initial licensure track, elementary school.**

The At Risk Young Reader/Writer: Assessment and Intervention

EDUC 7017 3 cr.

This specialized course focuses on early intervention for young children (K-2) who are at risk or are experiencing difficulties learning to read and/or write. The course uses the theoretical framework of emergent literacy as a foundation for assessment and intervention strategies. Students learn to use a variety of assessment tools, such as observation survey and running records to plan individualized, small group (guided reading) and large group (morning message, interactive writing) interventions.

Drawing/Writing and the New Literacy

EDUC 7018 3 cr.

For teachers in a Socratic, radically-constructivist, brain-based literacy program, this course addresses the challenge of teaching literacy skills so that they stick. The abilities to write and to read depend upon many skills, including the ability to pay attention, to extract information and to communicate information. These skills can be learned through drawing. When writing accompanies drawing, a double literacy develops both verbally and visually. The new literacy models encourage integrated brain function.

Drawing/Writing and the New Literacy-Intermediate

EDUC 7019 3 cr.

Consolidation of the five-step drawing and writing program introduced in EDUC 7018, Drawing/Writing. Emphasis on understanding multiple literacies and increasing self-knowledge through the Neuroconstructivist, cross-model teaching and learning are reviewed and deepened. Students will work with the writing curriculum in part four of the text Drawing/Writing and the New Literacy. Students are introduced to the four-fold hypothesis.

Connecting Reading and Writing

EDUC 7021 3 cr.

This research-based course is designed for classroom teachers, administrators, Chapter I, ELL, Bilingual, and special needs teachers who have participated in Writing To Learn and would like to become more knowledgeable about the relationship between reading and writing.

Prerequisite: EDUC 7001 or permission of the Instructor.

Education Foundations: Theory and Practice

EDUC 7023 3 cr.

This course includes an examination of the theoretical and practical knowledge of the teaching/learning process with special emphasis on constructivist learning. The following topics will be included: national standards for teachers; the licensure process; leading theoretical foundations of education thought; standard-based curriculum, Massachusetts Curriculum Frameworks, instruction, and assessment; constructivist lesson planning; inclusive practices; and classroom community building as it relates to classroom management. Candidates seeking initial licensure complete a field experience. **This course is part of the initial licensure track, early childhood, elementary and middle school.**

Educational Issues in Early Adolescent Development
EDUC 7024 3 cr.

This specialized course in the middle school education program will give teacher candidates the opportunity to identify, explore, discuss and reflect upon a wide variety of research as it relates to educational issues in early adolescent development central to their success in school. Central to the discussions will be the role of the middle school teacher. Candidates seeking initial licensure complete a field experience. Credit cannot be given for EDUC 7024 and EDUC 7300 or EDUC 8750. This course is part of the initial licensure track, middle school.

Teaching Science in the Elementary and Middle School
EDUC 7025 3 cr.

This course covers contemporary thinking, practices, and research in the teaching of science to elementary and middle school students. Emphasis is on providing innovative hands-on experiences for students. Candidates seeking initial licensure complete a field experience. This course is part of the initial licensure track, elementary and middle school.

Studying Skillful Teaching.
EDUC 7026 3 cr.

This course focuses on improving student learning and achievement by building capacity in three integrated strands: 1) use of varied and extensive research on the knowledge base about teaching 2) understanding teacher beliefs about their own and students' ability to learn 3) creating professional communities characterized by shared goals, collaborative work and shared accountability. This course is provided directly by Research for Better Teaching.

Content Instruction in a Standards-Based Classroom
EDUC 7029 3 cr.

This course provides the participants with the knowledge, skills and understanding to provide instruction in content in a standards-based learning environment. Participants conduct a brief review of literature of the essential concepts and skills of a content area(s), design an environment conducive to content learning, align learning experiences to state and national standards, and develop lessons that engage students while differentiating for diverse learning styles and special needs. They will also develop appropriate assessment strategies that align with standards and goals. Content standards as defined by the Massachusetts Curriculum Frameworks are emphasized.

Understanding Wellness and the Coordinated School Health Model
EDUC 7034 3 cr.

This course is designed to explore the six dimensions of wellness and how they relate to personal and professional goals.

Literacy Learning for Younger Children
EDUC 7035 3 cr.

This course provides students with an in-depth study of elements of an early literacy instructional framework, with a focus on the reading components. Included in the course of study are investigations of the following: Reading comprehension, interactive reading aloud to students, assessment of reading skills, shared reading, guided reading, independent reading, and word study. Students are expected to effectively implement each of these elements into a typical classroom study with a theoretical understanding of why particular decisions are being made.

Literacy in the Elementary School
EDUC 7036 3 cr.

This course is designed for Lowell teachers who teach balanced literacy to elementary students. The components of balanced literacy will be addressed as they relate to Massachusetts curriculum frameworks: phonemic awareness, phonic, fluency, vocabulary, comprehension, writing, and assessment. Throughout the course, emphasis will be on culturally responsive literacy instruction that incorporates an understanding of the development of motivation and resiliency in a diverse, urban population. Readings from research literature and current practice will frame discussion, inquiry, and analysis of the complexities of teaching literacy. Teachers will use Lowell's current curriculum materials to apply course concepts and strategies in job-embedded assignments and conduct a teacher inquiry connected to a course topic and the needs of the teachers' students.

Literacy Learning for Older Children and Adolescents
EDUC 7037 3cr.

This course is designed to assist participants in teaching the full range of intermediate students to read and write and to use literacy skills for a variety of purposes. Sessions will focus on implementing effective literacy practices with groups of students, using observations of students' reading and writing behaviors to effectively plan for different learners, and establishing a supportive, well-managed environment for learning. Participants will gain experience in observational assessments, lesson planning, guided reading, writing process, and language/word study.

Advanced Concepts and Methods of Elementary and Middle School Math
EDUC 7040 3 cr.

Students investigate methods and materials used in elementary and middle school programs. Students develop functional math skills for use by elementary and middle school teachers. This graduate course includes information on math principles (set, function, probability and statistics, geometry, and measurements, algebra, and computer awareness) and provides opportunities for the application of such information. Candidates seeking initial licensure complete a field experience. This course is part of the initial licensure track, elementary and middle school.

Observing and Analyzing Teaching I
EDUC 7041 3 cr.

This course is a practical, performance-based course for individuals who are currently working as-—or intend to work as—supervisors, evaluators, teacher leaders or central office administrators. It is designed to help school districts insure the quality and consistency of their professional growth and evaluation systems. OAT I examines the links between instructional leadership (encompassing supervision and evaluation) and student achievement. The course is organized into the three strands: understanding expert instruction, building instructional leadership skills and developing professional communities. This course is provided directly by Research for Better Teaching.

Observing & Analyzing Teaching II
EDUC 7050 3 cr.

The successor to Observing & Analyzing Teaching I course, the course focuses on the tools, skills, and strategies that participants need to help build cultures of high achievement and system-wide accountability for student learning. Emphasis is on practical applications, problem-solving and developing common standards and expectations within one's own work setting. The objectives enable participants to use a common language and concept system to analyze teaching and its impact on student learning, and discriminate levels of performance in relation to standards and criteria. This course is provided directly by Research for Better Teaching.

Whole Language in the Elementary School
EDUC 7101 3 cr.

This course provides a study of reading and writing processes from a psycholinguistic viewpoint. Whole language strategies for developing meaning including charts, chants and shared reading are explored. Emphasis is on theory and effective practice.

Advanced Topics in Conservation of Natural Resources
EDUC 7111 3 cr.

Conservation issues that occur in response to human use of the natural environment are examined and analyzed from a variety of physical, social and political perspectives. This interdisciplinary science course investigates the three science content areas of earth, life and content of chemistry and physics as they relate to conservation and natural resource issues in the context of the science and technology curriculum frameworks.

Teaching for Mathematical Understanding

EDUC 7118 3 cr.

This course focuses on the curriculum and pedagogy of standards-based middle school mathematics. Participants engage in problem solving and representing the mathematical concepts and professional teaching standards of middle school mathematics. Participants use graphing calculators, electronic probes, and internet resources.The course addresses the application of the Massachusetts Mathematics Curriculum Framework (MMCF) and the Massachusetts Professional Standards for Teachers (PST). Learning standards from all five strands of the MMCF for grades six through eight are included with an emphasis on developing skills for improving instruction, assessment and student achievement.

Working with a Range of Students in Mathematics

EDUC 7119 3 cr.

This course focuses on teaching mathematics to diverse students, including, but not limited to, those with special needs. The course focuses on participants' interaction with the "big ideas" of mathematics in order to help students develop a strong sense of understanding what is behind the numbers. Participants observe, analyze, and define children's mathematical learning needs utilizing a variety of evaluative techniques, both of an informal and formal nature. Participants learn to identify the essential knowledge, understandings and skills embodied in a diverse mathematical curriculum. The data obtained through the assessment process assists participants in the planning and implementation of plans for learning including, but not limited to, Individualized Education Plans (IEP's). The evaluation of learning styles (both self and student) is central to this process and is investigated along with a variety of techniques that can be incorporated into instruction of mathematics. Related current research is examined, with findings discussed in class.

Advanced Methods of Integrating Science, Math and Social Studies in Early Childhood Settings I

EDUC 7120 3 cr.

The course explores the curriculum areas of science, math and social studies in early childhood Education. Emphasis is placed on the development and demonstration of instructional techniques in these disciplines as well as the integration of these disciplines. Candidates will be investigating and developing appropriate curriculum activities designed for heterogeneous groups of young children with and without identified special needs. Candidates seeking initial licensure will complete a field experience. **This course is part of the initial licensure track, early childhood.**

Advanced Methods of Integrating Science, Math and Social Studies in Early Childhood Settings II

EDUC 7123 3 cr.

A continuation of EDUC 7120. **This course is part of the initial licensure track, early childhood.**

Early Childhood Education Issues: A Seminar

EDUC 7170 3 cr.

This course is designed to investigate issues and problems related to the education of young children. Emphasis is placed on current research and developmental theories related to the emotional, social, cognitive, linguistic and motoric development of a child and learning theories. Methodological and curricular concerns, teaching strategies and child-centered issues are explored. Other topical areas include developmentally appropriate practices, national accreditation and teacher training in early childhood education. As part of the seminar, students are required to undertake a library research paper on some aspect of early childhood education.

Play in Early Childhood Education: Theory, Research, Practice

EDUC 7190 3 cr.

This course is designed for early childhood educators and students of early childhood education who are interested in investigating play—the most important means that young children have in growing cognitively, socially, emotionally, physically, linguistically and kinesthetically. Theories of play, methods to enhance development through play and effective approaches to support young children's play, as well as materials and resources, are explored.

Language Arts and Literacy in Early Childhood Settings

EDUC 7222 3 cr.

This required core course for the initial license in Early Childhood Education will introduce the teacher candidate to strategies for literacy development of young children. Specific focus will be placed on emerging literacy and reading process and adaptations, including adaptations for English Language Learners and children with disabilities. The use of fine arts, to address the needs of all learners is also examined. An emphasis will be placed on the interdependence of reading and writing on oral receptive and expressive language. Research-based methodologies related to literacy development will be examined and their implications for teaching young children will be investigated. Candidates seeking initial license will conduct a field experience. Credit cannot be given for EDUC 7222, 7015,8400, and 8450. **This course is part of the initial licensure track, early childhood.**

Language Arts and Literacy at the Middle School

EDUC 7225 3 cr.

This course provides teacher candidates and those in-service with an introduction to the nature of language and language and literacy growth. Emphasis is placed on the meaning and importance of language arts and literacy, as well as on the characteristics of middle school age children, which affect and are affected by the language arts and literacy program. These children include English Language Learners; children with disabilities and special needs and children from diverse socio-economic backgrounds, from diverse linguistic backgrounds and from multicultural backgrounds. Elements of writing, speaking, listening, reading, viewing and visually representing are stressed. Curricular approaches and instructional strategies of successful language arts and literacy programs are emphasized. A field experience is an integral part of the course for those seeking initial licensure. **This course is part of the initial licensure track, middle school.**

Contemporary Issues and Curriculum for Multi-Needs Populations

EDUC 7228 3 cr.

This course is designed to encourage students to think about the historical, philosophical and theoretical foundations of educational practice and issues and their impact on multi-needs populations. Candidates reflect upon past, current and emerging educational practices and issues. Particular emphasis is placed upon rethinking personal assumptions and considering alternative perspectives in the midst of societal demands. New perspectives are then used to design, organize and develop curriculum which effectively creates a learning environment to meet the diverse needs of students. Candidates demonstrate curriculum competencies through the development of various curriculum projects which include understanding a variety of teaching strategies, resource applications and student assessment. **This course is part of the professional licensure, all tracks.**

Advanced Child Development

EDUC 7300 3 cr.

This core course explores human growth and development from birth to age 18. Particular attention is given to exploring the relationship between developmental theory and knowledge and educational decisions and practice. Various theoretical perspectives are covered as well as specific developmental areas, such as physical-motor, cognitive, language, social, and emotional development. How children develop as thinkers and learners, specifically how problems are solved at different points in development, is emphasized. In addition, students develop a clear understanding of the process of objective observation of children, as well as observation and recording skills appropriate for investigating various aspects of child development and behavior. Credit cannot be given for both EDUC 7300 and EDUC 7003. **This course is part of the professional licensure track, early childhood and elementary.**

Designing Differentiated Instruction in the Content Area
EDUC 7590 3 cr.

This course is suitable for all content areas and all grade levels. The focus is on using Understanding by Design and Universal Design for Learning to develop differentiated curriculum in the content areas. Candidates will participate in authentic experiences as they design curriculum, instruction and assessment that differentiate in ways that foster meaningful and successful learning for all students in all content areas.

Strategies for Creating an Effective Learning Environment
EDUC 7600 3 cr.

This course will provide teachers with tried and true strategies to consider in their teaching practices. Topics include but are not limited to: Responsive Classroom concepts, language as a teaching tool; nonverbal communication; behavioral issues in the regular education classroom; addressing the needs of the inclusion classroom. Participants are encouraged to share their teaching concerns and celebrate their success during class sessions as we work toward developing a more effective teaching repertoire.

Curriculum and Assessment for Teachers
EDUC 7610 3 cr.

This course is designed so that teachers will become knowledgeable about the theory and practice of standards-based curriculum and assessment.

Integrating Reading and Writing into the Subject Area Curriculum
EDUC 7620 3 cr.

The purpose of this course is to prepare teachers of math and science to a broad understanding of approaches to reading and writing as tools to promote and to evaluate learning in the content areas.

Learning Disabilities and Instructional Techniques
EDUC 7630 3 cr.

This course is a survey of the general field of learning disabilities, including history and definitions, as well as assessment and remediation.

Studying Skillful Teaching: Using Data SST 3
EDUC 8129 3 cr.

While providing an overview to a comprehensive model of the knowledge base on teaching, Studying Skillful Teaching: Using Data Day to Day focuses on 1) Planning lessons that are clear and accessible to all student; 2) Communicating high expectations; and 3) Using a variety of assessments to inform planning, teaching, and reflecting on lessons. Participants will learn both how to collect and analyze data and how to respond to data by drawing on research-based instructional strategies. In addition, a strong theme throughout the course is strengthening understanding and respect for our students' diverse cultural backgrounds. This course is provided directly by Research for Better Teaching.

Investigating Obstacles to Achievement (IOA) SST2
EDUC 8130 3 cr.

This course builds on the foundations and conversations initiated in the Studying Skillful Teaching course. IOA focuses on the potential causes contributing to student under-performance and what teachers can do to improve classroom instruction. Participants use current research, video analysis, classroom experiments, case studies, readings and discussions to consider the most common causes of academic shutdown and strategies to help these students; use a wide range of classroom assessment techniques; research impact of student self-theories, stereotyping and teacher beliefs on student achievement; and design learning experiences that actively engage students to help them meet performance standards. This course is provided directly by Research for Better Teaching.

Algebra for the Elementary and Middle School Teacher
EDUC 8131 3 cr.

This course is designed to strengthen the elementary or middle school math teacher's knowledge or topics in algebra. Topics will include numeration and number theory; algebraic expressions; equations and inequalities; relations and functions; and polynomial and rational functions.

Reading in the Content Areas: The Effective Teaching of Informational Text
EDUC 8134 3 cr.

This course is designed to provide teaches with a deep understanding of the reading process as well as to provide them with a wide variety of reading-to-learn strategies that can be embedded in content area lessons. This course will assist teachers in helping students become more knowledgeable in the content areas by teaching them to become proficient readers of non-fiction. By integrating scientifically validated reading principles and practices within their discipline, teachers will be able to make their subjects more comprehensible by improving students' understanding of the text's content and, therefore, increase achievement in the content areas.

Working with the Struggling Reader
EDUC 8135 3 cr.

This course is designed to give the special education and reading professional research-based background knowledge of the reading process, including reading abilities and disabilities, and reading approaches that include the consideration of motivation and engagement within all the components of the language arts curriculum. This course will focus on helping teachers develop an ability to design and plan effective teaching that will result in comprehensive literacy program for struggling readers of all ages. Students will demonstrate competency in developing and modifying lesson plans as well as reading instruction programs for students with diverse educational and/or cultural needs by assessing, evaluating, designing and implementing a clinical intervention with one student that will require one to one tutoring sessions totaling a minimum of two hours a week.

Advanced Assessment, Design, and Evaluation of the Middle School Curriculum
EDUC 8150 3 cr.

This course studies the historical and philosophical foundations of curriculum development in the middle school. By looking at various curriculum models, existing curriculum, the nature and needs of the middle school student, subject area knowledge, established standards and societal issues, students fully explore the question, "What ought to be the curriculum of the middle school?" Special attention is given to interdisciplinary, thematic planning and instruction. This course is part of the professional licensure track, middle school.

Qualitative Reading Assessment and Analysis
EDUC 8200 3 cr.

This core course focuses on reading assessment through use of informal procedures, such as miscue analysis, metacognitive assessments, schemata assessments, informal reading inventories, and other teacher initiated and designed assessment procedures. Additionally, the course emphasizes teacher decision making and instructional planning based on qualitative analysis of children's reading and study strategies. This course is part of the professional licensure track, early childhood and elementary.

Prerequisites: a course in literacy education at the graduate level recommended or with permission of the instructor.

Family Involvement in Early Childhood Education
EDUC 8250 3 cr.

This specialized course explores the importance of family interaction with the early childhood educator. Candidates receive a general overview of parent-child interactions, parent involvement, parent education, and parent participation in early childhood education Students are exposed to the various theoretical and practical approaches to family involvement practices in the early childhood education setting. Awareness, understanding, and appreciation of various family needs, circumstances and cultural experiences are promoted. Family-professional partnership models, which effectively serve families with a variety of needs and experiences, are explored. Candidates seeking initial licensure complete a field experience. Credit cannot be given for both EDUC 8250 and 8270. This course is part of the initial licensure track, early childhood.

Collaborating with and Involving Parents in Early Childhood Settings

EDUC 8270 3 cr.

This advanced specialized course examines the importance of family interaction with the Early Childhood Educator and the imperatives that require family involvement at this level. Candidates examine the various theoretical and research basis for involving families, along with effective family-professional partnership models. They use this knowledge to design and implement strategies for involving families in their settings. Awareness, understanding and appreciation of various family needs, circumstances, and cultural experiences are promoted. Credit cannot be given for both EDUC 8270 and EDUC 8250. This course is part of the professional licensure track, early childhood.

Research in Education

EDUC 8300 3 cr.

In this core course students engage in the scientific reasoning process and reflect upon this process as it relates to the educator's role. The goals and methods of educational research, the reading and analysis of primary sources, development of an educational research proposal using research and the teacher as researcher, are explored. In addition, course material includes currently used research strategies, such as ethnographic studies, action research and the case study approach. Emerging educational practices that are research-based are highlighted. Appropriate inferential and descriptive statistical methodologies are also studied. Candidates are strongly encouraged to develop an action research proposal during this course. This course is part of the initial licensure track, all majors.

Advanced Research in Education

EDUC 8310 3 cr.

This advanced core course is for candidates in the professional licensure track. In this course, candidates engage in the scientific reasoning process and reflect upon this process as it relates to the educator's role. Methods of educational research, developing an education action research proposal, using research to inform practice and the teacher as researcher are examined. Credit cannot be given for EDUC 8310 and EDUC 8300. This course is part of the professional licensure track, all majors.

Middle School Instructional Strategies and Practices

EDUC 8350 3 cr.

This course provides an in-depth look at a variety of instructional practices and strategies appropriate for effective teaching and learning of the early adolescent. Attention is given to addressing the needs of diverse student populations, including but not limited to children with different readiness levels, exceptional talent, different culture/ethnic background or at-risk characteristics. Active and interactive learning strategies are emphasized. This course is part of the professional licensure track, middle school.

Advanced Social Studies in Education

EDUC 8360 3 cr.

This course assesses traditional as well as new technologies and their potential applications within the field of social studies education from a historical, theoretical and practical perspective. Students examine how to integrate instructional experiences that equalize educational opportunities for a diverse and inclusive student population and explore opportunities for enhancing multicultural pluralism. The course investigates social studies content, strategies and techniques deemed essential to fulfill varied curriculum requirements by exploring the integrative and interdisciplinary nature of the content. Action-oriented processes are used to focus on the pertinent questions and issues at local, state and national levels as well as those of global importance. Also, inquiry-oriented processes are used to require students to ask questions and further develop and expand academic, social and thinking skills. Candidates are encouraged to challenge convention, raise questions about social assumptions and identify critical issues in social studies education. Candidates seeking initial licensure complete a field experience. This course is part of the initial licensure track, elementary and middle school.

Literacy in Elementary Education

EDUC 8400 3 cr.

This specialized course in literacy education examines literature and research related to literacy development. Specific attention is focused on language development, reading/writing process and on literature-based instruction. Classroom strategies and curriculum adaptations that enhance the learning and motivation of diverse learners, including those which integrate the fine arts, are presented, implemented and appraised. Credit cannot be given for EDUC 7015, 7222, 8400 or 8450. This course is part of the professional licensure track, elementary.

Literacy in Early Childhood Education

EDUC 8450 3 cr.

Advanced strategies for literacy development of young children are presented in this specialized course. Specific focus is placed on emerging literacy and reading process and adaptations, including adaptations which integrate the fine arts to address the needs of all learners. Students examine the interdependence of reading and writing on oral receptive and expressive language. A review of the literature that emphasizes theoretical and empirical research related to literacy development and its implications for teaching young children is investigated. Credit cannot be given for EDUC 7015, 7222, 8400 or 8450. This course is part of the professional licensure track, early childhood.

Advanced Emergent Literacy: New Perspectives, Pre-K - 2

EDUC 8480 3 cr.

Emphasis in this course is placed on reading and understanding the implications of recent research in emergent literacy. In addition, students observe and respond to early reading and writing behaviors. Candidates learn to support early writing, develop directional principles and understand concepts about print and early reading strategies from Reading Recovery by identifying and selecting natural language texts that promote a self-improving reading system and using picture book literature in gaining literacy. Participants learn to make instructional decisions based on current knowledge of emergent literacy and their own close observations.

Prerequisites: EDUC 7101, 8400, or 8450.

Developmental Assessment in Early Childhood Education

EDUC 8500 3 cr.

This is an advanced course in the design, development and implementation of developmental assessment tools in early childhood education. Candidates explore the meaning of developmental assessment, aspects of assessment reliability and validity, test construction and administration, limitations of assessment, observation as a tool for assessment, and other related topics. Students evaluate and demonstrate the uses of various assessment instruments. This course is part of the professional licensure track, early childhood.

Advanced Seminar in Child-Centered Issues

EDUC 8600 3 cr.

This specialized course in the elementary education program provides candidates with the opportunity to explore, discuss and reflect upon a variety of child-centered issues. Background information for discussions includes research results concerning environments which support and enhance optimum development. Some of the topics covered in the class are multi-cultural/multi-ethnic education, family-teacher partnerships, self-esteem research, inclusion, cognitive styles and creativity, the educator's role with abused children and educating from student strengths and interests. This course is part of the professional licensure track, elementary.

Assessment for Reading Instruction

EDUC 8625 3 cr.

The focus of this course is the assessment of what students identified with reading and/or writing difficulties understand about the reading and writing process.

Advanced Strategies and Approaches for Teaching Critical Thinking in the Content Areas

EDUC 8650 3 cr.

This specialized seminar integrates all content area subjects in an elementary school curriculum. In particular, it introduces students to the nature and scope of mathematics, science, social studies and fine arts in the elementary school. Students investigate a variety of content models and curriculum programs while they explore theoretical foundations, practical applications and current issues in the content areas. Strategies and modern techniques for effectively working with diverse populations of students, including computer application in the various content areas, are researched and emphasized. Students demonstrate competencies by developing and demonstrating techniques and activities which illustrate how concepts and practices are learned in each module and how they relate to student needs. This course is part of the professional licensure track, elementary.

Seminar in Early Adolescent Issues

EDUC 8750 3 cr.

This specialized course in the middle school education program gives students the opportunity to identify, explore, discuss, and reflect upon a wide variety of early adolescent issues central to the adolescent students' education, growth and development. Background information for discussions include research results concerning environments, which support and enhance adolescents' optimal development. Topics explored in the course may include self-esteem; family, school, and community partnerships; learning styles; social changes; and the role of the middle school teacher. Credit cannot be given for EDUC 8750 and 7300 or 7024. This course is part of the professional licensure track, middle school.

The Adult Learner

EDUC 9010 3 cr.

The focus of this course is on the nature of the adult learner. Through journals and readings, students gain an understanding of how the adult learner processes experience, how learning is best structured, and how feedback should be provided. An extension of this focus includes an investigation of human relations, gender uniqueness as well as relations within diverse populations as they impact the personal competence of the adult learner.

Reflective Seminar and Action Research

EDUC 9100 3 cr.

This course is the culminating work for candidates in the M.Ed. in early childhood education, elementary education and middle school education programs who are in the initial licensure track. It provides the candidate with the opportunity to implement educational concepts and practices gained through earlier courses and the course(s) being taken simultaneously though an action-research project. Each candidate, in consultation with the advisor, will be assigned a university supervisor/mentor for the project. Credit cannot be given for both EDUC 9100 and 9150. This course is part of the initial licensure track, all majors.

Prerequisite: EDUC 8300,

Advanced Seminar in Reflective Practice and Action Research

EDUC 9150 3 cr.

This course is the culminating work for candidates in the M.Ed. in early childhood education, elementary education and middle school education programs who are seeking or already possess a professional license. It provides the candidate with the opportunity to implement, at an advanced level, educational concepts and practices gained through earlier courses and the course(s) being taken simultaneously through an action research project. Each candidate, in consultation with the advisor, will be assigned a university supervisor/mentor for the action research. Credit cannot be given for EDUC 9150 and EDUC 9100. This course is part of the professional licensure track, all majors.

Prerequisite: EDUC 8310,

Educational Strategies

EDUC 9250 6 cr.

Given the context of the adult learner and the process of implementing educational change studied in the previous courses in the CAGS sequence, the focus of this course is on effective and promising strategies which improve teaching and, thereby, learning for all children. Students become proficient at critiquing the design, analysis and results of research to determine which strategies hold promise for improving teaching. Students also study current effective strategies in the field, such as cooperative learning, social interaction, peer mediation, teaching/learning styles, cross cultural competency, apprenticeship models, reciprocal teaching and project approach, as well as implementation of these strategies in their schools.

Internship and Reflective Analysis Seminar

EDUC 9350 6 cr.

This internship is designed to advance the development of self-directing educators who initiate, facilitate, participate in and evaluate all aspects of educational practice. A year-long experience, the internship offers an opportunity to practice communication skills and apply collaborative skills with one or more colleagues in the field. Through cooperative participation of school personnel, students are given the realm in which to plan, organize and evaluate ways of improving instruction and to implement educational change through such peer leadership structures and practices as mentoring, collaborative supervision, peer coaching and team teaching. All work is carried out under the supervision of faculty. Ongoing internship projects are analyzed during biweekly seminars.

Mentoring Internship: Program Design, Management, and Evaluation

EDUC 9360 3 cr.

Practicum I/Early Childhood Education

EDUC 9400 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Practicum II/Early Childhood Education

EDUC 9450 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Practicum I/Elementary Education

EDUC 9600 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Practicum II/Elementary Education

EDUC 9650 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Practicum I/Middle School Education

EDUC 9700 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Practicum II/Middle School Education

EDUC 9750 3 cr.

In this practicum experience, students are assigned to cooperating schools for a period of student teaching.

Algebra for the Elementary School Teacher

MTED 8001 3 cr.

This course is designed to strengthen the elementary school teacher's knowledge of topics in algebra and how to apply this knowledge in the classroom. Topics will include numeration and number theory; algebraic expressions; equations and inequalities; relations and functions; graphing relations and functions; and polynomial and rational functions.

Earth Science

Ecology

ESCI 7007 3 cr.

The dynamic relationship between organisms and their environment is investigated in this survey of major ecological concepts and methodology. Field and laboratory work emphasize problem identification, formulation of hypothesis, data collection, and analysis and interpretation of results in terms of biological implications.

The Modern Secondary School

ESCI 7012 3 cr.

This course is required of all MAT candidates who do not have initial licensure to teach. Covers a broad range of issues faced by teachers in today's secondary schools. Students become familiar with the complexities and demands of secondary school teaching. The course includes 25 hours of prepracticum experience.

New England's Glacial Landscape

ESCI 7100 3 cr.

New England's topographic features were shaped during the last ice age which ended approximately 11,000 years ago. Students learn how glacial geologists study ice age clues to determine how local landforms were developed. Field trips are required with emphasis on site identification of glacial features.

Observational Astronomy

ESCI 7200 3 cr.

This celestial survey course is aimed at providing both basic instruction and experience in viewing and recording the evening sky. Participants learn to set up, align and use all types of basic telescopes; view constellations, planets, moon star clusters, nebula, galaxies, double stars and variable stars of the fall and early winter sky and learn basic techniques for recording observations through the medium of sketching, photography and CCD cameras. A substantial part of this course consists of field work located at instructor's observatory in a rural section of Fitchburg approximately 10 minutes from the university. The remaining work consists of labs and analyses of data collected by participants. A project is required of all students. Meetings after the first session are held off-campus and some variable scheduling is done to take advantage of sky conditions or cancellations due to cloud cover.

Meteorology

ESCI 7300 3 cr.

This is an introductory course in atmospheric meteorology, oceanography and the space environment. Main topics of consideration are climatology and large-scale transient weather phenomena that affect the earth. Course curriculum includes background concepts in meteorology and a student project on a topic of current interest.

Oceanography

ESCI 7400 3 cr.

This course examines the physical and chemical properties of sea water and their roles in the energy/nutrient cycles of marine ecosystems, the role of nutrient cycles and upwelling in fisheries locations, the fluid dynamics of oceanic circulations in both the surface and deep water regions, and the geology of the seabed, including plate tectonics (continental drift), marine sedimentation processes and coral reef formation and bleaching. Finally, a thorough study of the coastal geomorphic/oceanic processes that shape the coastlines of the world via wave dynamics, coastal erosion and erosion control techniques is explored.

Advanced Methods of Teaching at the Secondary Level

ESCI 8000 3 cr.

The course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: ESCI 7012 or Initial Teacher Licensure.

Environmental Geology

ESCI 8100 3 cr.

This course is designed for teachers who need a science-based approach to understanding and solving environmental problems. Case studies that explore environmental problems are examined. Issues range from impact of earthquakes, volcanic eruptions and flooding on local communities, to climatic changes on a global scale and the affects of the current world population on the carrying capacity of Earth.

Curriculum and Technology

ESCI 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. The course also explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues.

Curriculum Design and Development

ESCI 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Research in Education

ESCI 8500 3 cr.

Research is carried out in a specific field of education that involves an in-depth exploration of a well-defined problem. The student must develop a hypothesis for the possible solution to the problem, develop the experimental technique to test the hypothesis and develop a logical conclusion based upon the data collected. The final product is a written documentation of the research and results. Each study is done under the supervision of graduate faculty.

Independent Study

ESCI 9100 3 cr.

The content of these courses is designed by a student with the guidance of a faculty member to provide in-depth exposure to a topic for which no regular course is available.

Clinical Experience

ESCI 9400 6 cr.

See BIOL 9400 for course description.

Internship

ESCI 9500 6 cr.

The Internship is a capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. Within the individual's classroom it incorporates all standards specific to the discipline in which certification is sought as well as all common standards for classroom teachers. A minimum of 400 clock hours or one full semester on-site under the auspices of the university is fulfilled. A research project is completed during the duration of the internship.

Educational Leadership and Management

Computer Application in Education
EDLM 7000 3 cr.

This course is designed for teachers and administrators who have had little exposure to computers and data processing. Administrators learn to use the computer as a management tool, especially as it relates to fiscal and personnel matters. Through hands-on experience, participants become familiar with the equipment and learn how computers and systems work.

Politics of Education
EDLM 7005 3 cr.

This course deals with the various processes that are utilized at the federal, state, and local levels to identify multilevel educational programs and priorities and to fund them. Students develop systematic knowledge about their political environment, acquire skills and strategies necessary to act on that knowledge and attain principles that shape responsible political action. Guest speakers share their particular viewpoints in these areas.

Physical Plants and Transportation
EDLM 7010 3 cr.

This course examines the challenges, problems, and activities related to new building programs. It also looks at the various aspects of phasing out old buildings, providing alternate uses and redefining grade, curricula, and administrative organizational patterns.

Organizational Theory and Educational Planning
EDLM 7020 3 cr.

This course explores the principles of school district organization and function. In the context of the school district, students assess the individual and social needs, formulate direction setting purposes and acquire model building and simulation techniques. Plant management and transportation issues are also addressed.

Introduction to Systems Approaches in Education
EDLM 7030 3 cr.

The course provides a conceptual basis for systems approaches to administrative and leadership problems in education. Through cases and simulations students learn the application of such techniques. Needs assessment, planning, operational and evaluative approaches are discussed and practiced.

Collective Bargaining in Education
EDLM 7040 3 cr.

This course reviews the federal and state statutes pertaining to collective bargaining in the public sector. Specific emphasis is placed on those statutes bearing on Massachusetts and its educational enterprises. Among the topics discussed and dissected are bargaining contracts, bargaining processes and legal issues.

Topics
EDLM 7500 3 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest.

Applying Computer Technology in Education
EDLM 7510 3 cr.

This course provides teachers and administrators, at all levels and in all subject areas, with strategies for developing and implementing the use of current and near future computer technology in education. Participants explore creative techniques to build into and enhance their existing curriculum. Working with current software applications, the Internet and the World Wide Web, participants devise programs and materials for their own classrooms and schools and in support of their teaching. Individual laboratory and project development activity will take place during each class. Little or no prior computer experience is needed.

Planning Professional Development Programs
EDLM 7520 3 cr.

This course will assist both the educational administrator and the classroom practitioner to focus on professional development and its central importance to school improvement. Students will consider the necessary elements to develop a quality professional development program. Given the current Massachusetts reform initiative in teacher certification, and that school districts are providing low or no cost options for staff development, this seminar will address timely issues including effective analysis, planning, roles, schedules and designs of meaningful professional development. Professional training plans and techniques in hospitals, social agencies and industrial sites will also be explored.

Schools, Family, Student Partnerships in Education
EDLM 7530 3 cr.

This course explores techniques and practices which can maximize the strengths and advantages of schools, families and students. A shift of the current paradigm of education to one that applies the principles of supporting and developing the student is explored. Particular attention will be given to teacher, parent and student partnerships for learning how to help students to learn. While discussing theoretical and practical applications of such partnerships, functional local programs will be designed to enhance the involvement of each of these groups in the educational process.

Managing Diversity
EDLM 7600 3 cr.

This seminar focuses on cultural diversity in schools and on the growing challenges and opportunities diversity provides for educators. Emphasis is given to the unique regional cultural/linguistic demographics of diversity within a proactive perspective. Reflective readings and application strategies prepare the educational leader for rewarding multicultural communication and a commitment to effective management of diversity.

Community Relations
EDLM 8000 3 cr.

In this course students learn communication techniques and acquire knowledge about political structures and regulations for improving a school and/or community. Individuals develop strategies for relations within their own community, utilizing specific goal-setting techniques. A review of current literature promotes an awareness of the diverse publics involved and suggests methods for dealing with and influencing perceptions about schools and their educational goals. A pre-practicum experience is included as an activity of this course.

Foundations of Educational Administration
EDLM 8005 3 cr.

This introductory course is designed to provide an overview of school leadership focusing on the philosophical foundations of education; the psychological traditions of learning processes; the legal parameters of the school as an institution within the society; the cultural environment of urban, suburban, and rural educational settings; and educational trends as indicated by current research and pertinent literature.

Principles of Success for Practicing Administrators: Putting Plans into Action
EDLM 8006 3 cr.

This course develops theory and practice behind the implementation of principle-centered leadership. The course is built around specific issues and needs of individuals who are fully employed as school administrators/directors. Topics covered include: communicating effectively, developing innovative action plans based on goals and vision, creating a support system that empowers others and developing steps of program implementation within organization restrictions. Administrators practice sustaining action, problem solving, celebrating success and measuring progress.

Human Resources and Personnel Administration

EDLM 8010 3 cr.

This course focuses on establishing the rationale and organizational structure that supports effective human resource administration. Among the topics included in this course are staff selection, teacher induction, teacher tenure, promotion and dismissal, salary scheduling, policy making, relations with professional and non-professional personnel, and employee welfare. Emphasis is placed on the interpersonal dynamics of the educational enterprise as it relates to human resource management. Additionally, there is an exploration of issues involving affirmative action, and concerns about the underrepresentation of minorities in teaching and administration.

Educational Technology Ethics

EDLM 8015 3 cr.

Examines the impact of educational technology on social, legal, cultural and moral systems. Social policies and laws related to copyright, intellectual property, privacy, free speech and responsible behavior are discussed.

Law for the Educator

EDLM 8020 3 cr.

Constitutional and statutory provisions governing a public school system are examined on local, state and national levels. A thorough review is made of the legal parameters surrounding the local level of the educational system. In addition, students inspect federal and state guidelines generated to meet the needs of diverse student populations in compliance with current judicial decisions and state legislation. The impact of precedent-setting cases is a major focus of this course.

Conflict Management Seminar

EDLM 8024 3 cr.

What we believe and what we've been taught influences how we act in the development and resolution of conflict. Competence as a conflict intervener, then, is characterized in part by the ability to apply contemporary theory to inform practice and to reflect about one's own conflict belief systems and the ways they influence intervention work. One part of this course explores interdisciplinary theoretical frameworks for interpreting conflict and examines the critical role of identity issues, including culture, gender and class, in the analysis and resolution of conflict. A second part of the course investigates the nature of reflective practice and creates a medium for students' examination of their own beliefs about conflict and its resolution, with an emphasis on the influence those beliefs have on mediation practice and developing consistency between beliefs and practice.

Public School Finance

EDLM 8030 3 cr.

This course addresses the fiscal and allocated functions of school administration. Students develop the skills and knowledge related to budgeting, accounting and financing at the local, state and federal levels. Resource acquisition and development of strategies for locating alternative revenue sources and, subsequently, allocating these resources efficiently and effectively, are skills the student acquires.

Curriculum Leadership and Evaluation

EDLM 8040 3 cr.

This course is designed for administrators who must become knowledgeable about curriculum development and program evaluation. The role of the administrator as a decisionmaker and as an instructional leader is explored. Emphasis is placed on program development and evaluation, which reflects the various cultural and ethnic minority groups students represent. Additionally, practical applications of programs as well as the application of evaluation models and techniques are investigated. Prepracticum responsibilities are a part of this course.

Seminar: Research in Educational Leadership

EDLM 8050 3 cr.

This course is designed to acquaint the student with the current research in educational administration and to teach the student how to evaluate the pertinence of this research to educational problems and issues. Students identify and use research sources and undertake projects that prepare them to address educational issues in an informed and lucid manner. Prepracticum responsibilities are a part of this course.

Administration of Special Education Programs

EDLM 8800 3 cr.

Service delivery models as they relate to legislation, general curriculum and various handicapping conditions are presented. Emphasis is given to the services, organization, programs, personnel and facilities as they relate to the exceptional child and young adult. Students are expected to be well-versed in the effects of federal and state mandates for special education services as a result of this course.

The Principal: Organization and Administration of the Elementary, Middle, and Secondary School

EDLM 9000 3 cr.

This course addresses the role of the principal as an effective manager of schools at various levels of education. The focus is on the development of the human, conceptual, and technical skills required of decision-making, communication, planning and recruitment, scheduling, public relations, evaluating and contract management. Course assignments reflect the specific level of interest of the participants (elementary, middle, and senior high schools). Nine semester hours of prerequisite core courses (excluding EDLM 91XX) are required.

Cases and Concepts in Educational Administration

EDLM 9010 3 cr.

A case study approach is used to address problems and issues encountered in school administration. Current managerial concepts and strategies are used to explore alternative solutions to and methods of dealing with administrative problems and issues. This course is normally taken by students when all core courses have been completed in order to maximize their integration of administrative knowledge and skills.

Public Relations Tools for Leaders

EDLM 9015 3 cr.

Leaders are successful only when they win support for their programs. This course provides leaders with the tools to develop the public relations strategies, plans and campaigns that bring success within reach. More practical than philosophical in its approach, this course emphasizes audience analysis and long range planning while providing proven techniques for using the news media, writing effective speeches, synchronizing community relations initiatives and managing a bad news crisis. At the end of the course, each leader will have a tailored action plan and the wherewithal to implement it.

Collegial Supervision

EDLM 9020 3 cr.

The nature and function of supervision as it relates to both the teacher and the supervisor are studied. Also presented is a contemporary view of the concept of supervision from both a theoretical and practical perspective. The role of the supervisor is discussed as it has evolved from the traditional model to the instructional leadership model—a model that embraces collegiality and professional development. Included are strategies and processes related to a variety of supervisory models, such as clinical supervision, mentoring, differentiated supervision, cooperative development and self-directed development. Emphasis is on studying ways in which the planning, organization and evaluation of instruction may be effectively improved through the cooperative participation of school personnel.

History of Higher Education

EDLM 9026 3 cr.

The course explores the major development in American education from the 17th century to the present. Emphasis is placed upon aspects of European education and how it impacted higher education as we presently know it. The philosophical as well as historical aspects of the modern system and its evolution are covered.

Leadership Theory

EDLM 9030 3 cr.

This course covers the entire Leadership Theory Movement from its inception to present day thinking. All aspects of the discipline are covered, including leadership theory, findings of leading scholars, leadership techniques, case studies associated with successes and failures, and application to a modern society.

Organizational Issues
EDLM 9040 3 cr.

This course covers the role of the modern organization in a changing environment with emphasis on key organizational issues of importance.

College and University Teaching
EDLM 9050 3 cr.

This course explores the history, philosophy and objectives of teaching at all levels of higher education. The teaching and learning process is covered in depth with a special emphasis placed upon developing an understanding of the student, teacher and the interaction required for effective learning.

Social Context
EDLM 9060 3 cr.

This course covers social issues in higher education in a changing environment with emphasis on key current issues.

Strategic Planning in Higher Education
EDLM 9070 3 cr.

This course is a comprehensive review of strategic planning for higher education. All functional areas of strategic planning are covered with emphasis on its relationship to marketing, management, and finance. The course utilizes case studies.

Practicum in Higher Education Administration
EDLM 9080 6 cr.

The practicum/internship position for the enrolled student provides all of the necessary experience for a particular position in administration. The experience is supervised by an experienced faculty member. The timing coincides with an academic semester. Specific educational outcomes are developed by the student with assistance from a designated faculty member. A total of 300 hours are required for the semester.

Independent Study
EDLM 9090 3 cr.

This course utilizes a conference approach with an individual student placing emphasis on critical thinking, refinement of research skills and ability to pursue topics independently. In some exceptional cases, students are permitted to utilize this course in lieu of core or specialization track courses due to completion time constraints or lack of course offerings.

Prerequisite: permission of advisor only.

The Dynamics of Planned Change
EDLM 9100 3 cr.

A study of planned change, essentially aimed at education, includes a review and analysis of sociological and psychological factors inherent in the change process. Topics reviewed include organizational behavior, intervention theory, intergroup relations, and management techniques. The course schedule includes a series of multi-hour sessions mixing lecture, simulation, problem-solving and discussion of the four major course components: organizations; planning change; strategic planning and managing change. Topics are considered in light of the overall objective of changing/improving schools with an eye toward improving the education of students and, consequently, improving their lives. Candidates will participate in an eight hour, one day strategic planning session.

A Practicum/Internship in Educational Leadership and Management: Supervisor/Director
EDLM 9101 6 cr.

The culminating course in the master's degree program consists of an internship/practicum experience under the direct supervision of a principal and/or director and the university supervisor. The graduate student is obliged to work in a school setting performing the kinds of responsibilities and duties for which they are is preparing, such as principal—supervisor/director that directly address the Administrative Leadership MA and NPBEA Standards. The practicum can be arranged for full-time or part-time. Final practicum arrangements are to be agreed upon with an advisor at least one semester prior to the practicum. During the practicum, students meet with their university advisor and are visited at their practicum site. This practicum consists of a minimum of 400 clock hours earned at the practicum site.

A Practicum in Educational Leadership and Management: School Principal Pre K-6
EDLM 9300 6 cr.

The culminating course in the master's degree program consists of an internship/practicum experience under the direct supervision of a principal and/or director and the university supervisor. The graduate student is obliged to work in a school setting performing the kinds of responsibilities and duties for which they are preparing, such as principal—supervisor/director that directly address the Administrative Leadership MA and NPBEA Standards. The practicum can be arranged for full-time or part-time. Final practicum arrangements are to be agreed upon with an advisor at least one semester prior to the practicum. During the practicum, students meet with their university advisor and are visited at their practicum site. This practicum consists of a minimum of 400 clock hours earned at the practicum site.

A Practicum in Educational Leadership and Management: School Principal 5-8
EDLM 9310 6 cr.

The culminating course in the master's degree program consists of an internship/practicum experience under the direct supervision of a principal and/or director and the university supervisor. The graduate student is obliged to work in a school setting performing the kinds of responsibilities and duties for which they are preparing, such as principal—supervisor/director that directly address the Administrative Leadership MA and NPBEA Standards. The practicum can be arranged for full-time or part-time. Final practicum arrangements are to be agreed upon with an advisor at least one semester prior to the practicum. During the practicum, students meet with their university advisor and are visited at their practicum site. This practicum consists of a minimum of 400 clock hours earned at the practicum site.

A Practicum in Educational Leadership and Management: School Principal 9-12
EDLM 9320 6 cr.

The culminating course in the master's degree program consists of an internship/practicum experience under the direct supervision of a principal and/or director and the university supervisor. The graduate student is obliged to work in a school setting performing the kinds of responsibilities and duties for which they are preparing, such as principal—supervisor/director that directly address the Administrative Leadership MA and NPBEA Standards. The practicum can be arranged for full-time or part-time. Final practicum arrangements are to be agreed upon with an advisor at least one semester prior to the practicum. During the practicum, students meet with their university advisor and are visited at their practicum site. This practicum consists of a minimum of 400 clock hours earned at the practicum site.

Clinical Experience in Educational Leadership and Management
EDLM 9221 6 cr.

The clinical experience is in the role and at the level of the certificate sought. It integrates content area knowledge, pedagogical theory, and practice. A clinical experience requires a minimum of 400 clock hours or one full semester as defined by the field site. Clinical experiences are fulfilled either under the auspices of a college or university, in which case supervision and evaluation are the responsibility of the college or university, or under the auspices of a school system authorized by the Bureau as a clinical experience site, in which case supervision and evaluation are the responsibility of the school system. Evaluation of all clinical experiences are based on the appropriate standards for the administrative certificate being sought.

Thesis
EDLM 9500 3 cr.

The thesis is undertaken by students who are not seeking certification and in lieu of the practicum/internship in the Education Leadership and Management Program.

(See thesis description in the Education Leadership and Management Program description).

The Contemporary Educational Leader (Capstone)

EDLM 9600 3 cr.

This course explores the significant issues and relevant research affecting individual and systemic educational leadership. Students will actively investigate such topics of contemporary concern as diversity, reform movements, the profession of teaching, the poser of leadership, creative curricula, innovative learning environments, the promise and potential of new educational technologies, student and faculty accountability to the curriculum, equity in funding and financial megatrends. The course will provide master teachers, administrators and staff developers with new insights into the key ideas and critical components of proactive leadership.

Comprehensive Examination

EDLM 9999 0 cr.

All EDLM licensure and non-licensure candidates, excluding Technology Leadership candidates, must register for EDLM 9999 Comprehensive Examination to take the comprehensive examination as part of their program of study after they have completed at least 33 credits of program coursework. For a full policy consult the latest EDLM Faculty and Student Handbook or contact the program chair.

EDLM/NISL

The following series of courses are open to students that are participants in the National Institute for School Leadership Program.

World Class Schooling: Vision and Goals

NISL 7000 4 cr.

With a focus on developing and implementing school vision and goals, candidates will undertake the broad learning involved in developing the capacity and commitment as an effective instructional leader.

Focus on Teaching and Learning

NISL 7500 4 cr.

With a focus on teaching and learning, candidates will undertake the broad learning involved in developing the capacity and commitment as an effective instructional leader.

Developing Capacity and Commitment

NISL 8000 4 cr.

Candidates will undertake the broad learning involved in developing the capacity and commitment as an effective instructional leader. Focus is on the Principal.

Leadership for Sustainable and Systematic Change

NISL 8500 4 cr.

Candidates will examine the role of the principal in spearheading changes needed in their schools to bring all students to high levels of achievement; and in strategizing and implementing not only change, but improvements.

Seminar One: Community Relations, Strategies and Action Research

NISL 9000 3 cr.

Candidates work with the school's internal and external publics to develop community relation strategies and to conduct an action research project (2-25 hour pre-practicum experiences are course requirements).

Seminar Two: Contemporary Problems in Educational Leadership

NISL 9500 2 cr.

Candidates explore contemporary problems affecting educational leadership and complete a 25 hour pre-practicum experience in the area of curriculum.

Educational Technology

Audio and Video Production for the Classroom

ETEC 7020 3 cr.

This is a process-oriented course with emphasis on selection, operation, and use of current video equipment designed for instructional use. Emphasis is on setting up and operating video and audio equipment for classrooms, small ITV studios, location shooting, and postproduction for preparation of instruction.

Graphics for Designing Media

ETEC 7030 3 cr.

This is a basic course applying the elements of graphic design to the development of learning resources. Students apply their acquired graphic skills to prepare handouts, visuals for display, and other graphic materials in instructional settings.

Slide-Sound Production

ETEC 7050 3 cr.

Instruction in presentation techniques of projected imagery; emphasis on 35mm slide/tape and Super 8 mm film animation is offered. Students receive instruction in basic operation of the appropriate equipment and adaptation of the product for effective instruction. Students must supply film.

Television Production I for Educators

ETEC 7100 3 cr.

This is a process-oriented course with emphasis on setting up. Operating and maintaining radio and television production equipment. Students will be involved in production of a half-hour show to be cablecast on Channel A-3, A-8, A-22 in Boston.

Television Production II for Educators

ETEC 7150 3 cr.

This process-oriented course is designed to make students proficient in production of TV programming with stress upon being able to make, obtain and setup necessary props; background; trick camera shots and sound effects. Emphasis is on advanced skill development and color production as a team. Students will learn to integrate good television programming into school-based curriculum and to use television as an instructional tool.

Applying Visual Theory to the Classroom

ETEC 7200 3 cr.

Exploration of the theoretical constructs underlying all visual expression with particular emphasis on projected imagery. Activities include applying theory through design and producing visual statements in a variety of media for the classroom.

Photography for Educators

ETEC 7250 3 cr.

This basic course offers instruction in camera handling, film exposure and development, production, mounting, display, and evaluation of prints. A skills course with applications for teachers, media specialists and others interested in use of the photographic medium. Students must have access to an adjustable camera. Students are responsible for film, paper and chemicals.

Web Design for Teachers

ETEC 7253 3 cr

Process-oriented course covering basic HTML (hypertext markup language), emphasizing the use of CGI scripts and forms to create customized and interactive Web pages. The course will touch on some features of HTML, such as tables, for educational purposes.

Introduction to Educational Technology

ETEC 7600 3 cr.

This course includes content related to the impact of technology on education, especially as it relates to effective teaching and curriculum development. The use of technology as a change agent in schools is explored. Students are exposed to the variety of technologies used in schools.

A Graphics Approach to Technology

ETEC 7700 3 cr.

This course explores the integration of visual learning and computers. Students explore the use of paint and draw programs, videos, and interactive videos.

Using the Computer as a Research Tool
ETEC 7800 3 cr.
This course integrates critical thinking skills and computers. Students explore the use of problem solving software, Logo, and Logo Writer. By using the computer as a tool for conducting research students are enabled to look at CD-ROM, database applications, Hypercard and telecommunications.

Advanced Photography for Educators
ETEC 8050 3 cr.
This course assumes knowledge of basic photographic principles with emphasis on control of the medium. Topics include exposure, metering, darkroom techniques and print manipulation. Students will discuss educational applications, design and composition, and critical evaluation of work.

Color Photography for Educators
ETEC 8100 3 cr.
This color course offers instruction in all basic aspects of color printing whether you intend to work with color negatives or color slides. Students must have access to an adjustable camera. Students are responsible for film paper and chemicals.

Advanced Graphics for Educators
ETEC 8150 3 cr.
This advanced course applies the elements of graphic design, copy-fitting and printing procedures to the development learning resources. Students apply their acquired graphic skills to prepare overhead transparencies, visual for display and other graphic materials in instructional settings.

Advanced Portable Video Production
ETEC 8200 3 cr.
In this advanced ITV production course students will supplement skills developed in prior production classes. It involves use of sophisticated program planning procedures and production/postproduction techniques. There is emphasis on advanced skills development and color production as a team.

Computers and Writing
ETEC 8600 3 cr.
This course provides teachers and administrators, at all levels and in all subject areas, with strategies for developing and implementing a computer-assisted process writing program in their classrooms and schools. Participants examine the process of writing (idea generating, drafting, responding, revising, editing, and publishing) and are introduced to ways of using the computer to facilitate writing growth at each stage. Working with current writing software programs, editing tools, and desktop publishing packages, participants devise a computer-assisted writing program for their own classrooms and schools. Previous computer experience is not required.

Interactive Design and Analysis in Education
ETEC 9090 3 cr.
This course includes a presentation of organizational structure and teamwork requirements and their impact on timeline demands of various multimedia designs. Analysis of project objectives for designs and paradigms of interactive formats is conducted for presentations, training, marketing, and kiosks. Students will survey hardware and software options for addressing project needs.

Seminar in Educational Technology
ETEC 9100 3 cr.
Students have the opportunity to examine, in depth, current issues and future directions in educational technology. Discussions and readings focus on the relationship between the computer and teaching methodologies, as well as teacher effectiveness and curricula.

Communication and Productivity Tools for Teachers
ETEC 9140 3 cr.
This course presents the principles of formulating persuasive strategies for organizing information and creating written, electronic, and mediated communications. Candidates become familiar with current computing hardware, software, accessories, interfaces, and applications helpful to technology leaders.

Project in Educational Technology
ETEC 9200 3 cr.
Completion of a comprehensive project utilizing educational technology in elementary education, special education, or secondary education is required. The projects developed and implemented are evaluated by a review board of classmates and faculty.

English

**Asterisk indicates that the course may be offered less than once every two years.*

Children's Literature
ENGL 7010 3 cr.
Students in this class study the content of classic and contemporary children's literature plus various approaches for interpreting and teaching a wide variety of children's texts. Close attention is paid to emerging trends in children's literature as well as to the literature's enduring concerns.

The Modern Secondary School
ENGL 7012 3 cr.
This course is required of all MAT candidates who do not have initial licensure to teach and covers a broad range of issues faced by teachers in today's secondary schools. Students become familiar with the complexities and demands of secondary school teaching. The course includes 25 hours of prepracticum experience.

Teaching College Writing
ENGL 7020 3 cr.
This course is designed to prepare English graduate students or others with proper academic credentials to teach introductory college-level writing, introduce students to central issues, problems, and theories in composition studies, and to examine ways in which our experience as writers can help shape the teaching of composition. Although the emphasis on this course will be on the central, practical tasks of teaching writing, we will move beyond a simple, prescriptive "how-to" in order to examine other theoretical and pedagogical issues that shape what we do and why.

Advanced Methods of Teaching at the Secondary Level
ENGL 8000 3 cr.
This course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: ENGL 7012 or initial teacher licensure.

Creative Writing
ENGL 8020 3 cr.
This course facilitates the writing of poetry and/or short fiction in a workshop atmosphere.

The Robert Cormier Collection
ENGL 8035 3 cr.
This course is a study of the writings of Robert Cormier, the internationally acclaimed Leominster author, using materials in the Robert Cormier Manuscript Collection at Fitchburg State University. "The Chocolate War," "I Am the Cheese," "Tenderness," "Heroes," "Frenchtown Summer," and other works by Cormier are examined.

Theories and Principles of Language Learning
***ENGL 8040 3 cr.**
This course provides teachers of multilingual students with a theoretical background for the teaching and learning of languages. It introduces research into second language acquisition from perspectives of the fields of linguistics, psychology and education. Topics include language acquisition; learning styles and strategies; effects of personality, age, motivation and sociological factors; and the role of the first language. Discussions explore the relationship of theory to methodology and classroom practice.

Methods and Materials in ESL

***ENGL 8042 3 cr.**

This course will explore the major methodological approaches to teaching English as a Second Language (ESL), including a historical survey and a review of current applications. The following topics are discussed: interactive, communicative classroom practices; teaching reading, writing, listening, oral communication, grammar, and vocabulary; testing and designing and evaluating classroom materials.

Graduate Study & Research in English

ENGL 8050 3 cr.

Designed for students who are new to the English Graduate Program, this course promotes the student's ability to do independent and creative scholarly research and to become more competent in critical approaches to literature, research techniques, new methodologies, and technologies, as well as library and archival examination. Students in the MAT in English Licensure Program develop the research proposal for the classroom research project required during their 400 hour Internship/Clinical experience.

Literature in the Classroom

ENGL 8070 3 cr.

This course examines the place of literature in today's middle and secondary school classroom. Using the Standards for the English Language Arts (NCTE and IRA) and the Massachusetts English Language Arts Curriculum Framework as guides, we consider the choice of classic and contemporary literature for whole class and individual reading, strategies for creating responsive and reflective readers of literature, and means of assessing student performance.

Literature for Young Adults

ENGL 8071 3 cr.

Literature for Young Adults is a survey of current books written especially for middle and secondary school students, as well as a study of strategies for teaching them. The emphasis is on the newest books available in paperback that are suitable for classroom use or recreational reading. Strategies for encouraging student engagement with literature, for pairing young adult novels with the classics and for sharing responses are modeled by the professor and evaluated by students.

Creating Literacy Experience: Building Reading and Writing into the Content Areas

ENGL 8076 3 cr.

Writing across the curriculum provides learners with the opportunity to investigate their own thinking as they go beyond the surface level of text or subject matter to arrive at meaningful connections and insights. Students investigate creative approaches to introduce current research journals into portfolios and audience assessment. Working independently and in cooperative learning groups, participants immerse themselves in the reading/writing/thinking process, create their own portfolios, design mini-lessons, conduct research, and share their learning and thinking.

Literature and Film

ENGL 8085 3 cr.

This is an introduction to the relationship between literature and film through the critical study of each medium. Special consideration is given to matters of characterization, narration, plot, setting, theme and tone in written works and films. Students are introduced to conventions of the documentary and fictional film, principles of scriptwriting and the elements of formal screen production.

Practicum

ENGL 8090/8091 6 cr.

Student teaching experience is offered to give practical classroom experience to those degree students who have not satisfied the state requirements for certification. Students may enroll for a second semester by permission.

Curriculum and Technology

ENGL 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. This course explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues.

Curriculum Design & Development

ENGL 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise, and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise, and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Literary Theory: Practical Applications for Today's Readers

ENGL 9000 3 cr.

This course surveys theories of literature with emphasis on applying them to our readings of a wide variety of texts. Study includes a brief historical survey, but focuses on such contemporary practices as cultural studies and feminist theory. Texts and theoretical schools may vary from semester to semester. Practical applications in the classroom and in one's own reading guide class discussion.

Chaucer

ENGL 9010 3 cr.

Students read Chaucer's major works, beginning with early poems and lyrics, then concentrating on *The Canterbury Tales* and *Troilus and Criseyde*. Focus is on the Middle English Language; critical approaches, and literary analysis.

The Literature of the Middle Ages

ENGL 9011 3 cr.

The course surveys selected texts from the Middle Ages, starting with Beowulf and Old English lyrics, and including representative Middle English, Celtic, Anglo-Norman and French works. Various genres are covered, including epic, lyric, drama, Arthurian romance, legend, religious verse and satire. All works except the Middle English are read in translation.

The Practice of Poetry: Critical Reading, Creative Writing

ENGL 9012 3 cr.

This active-learning course explores the contemporary poetry scene: productions, performances and discussions of poetry as it is practiced today. Students compose original poems in a variety of styles and learn interactive methods of responding to poetry. Students read literary works representing major poetry trends. Students visit the computer lab, learning the basics of accessing online poetry groups and publications online. Students attend a live or taped reading, research several literary journals and prepare either a final paper or a selection of original poems.

Folklore in American Culture

ENGL 9015 4 cr.

Folklore constitutes an integral link between traditions of the past and the practices of the present. The course introduces the study of folklore—its guiding theories and methods, as well as its historical and present day contributions to research in the humanities and the social sciences. The course culminates with student field research.

Composition Theory and Practice
ENGL 9016 3 cr.
This course is intended to help students create a framework for generating their own philosophy of writing. It is intended to help students develop a deeper understanding of their own writing processes, to recognize the complexities of literacy and writing, and to become more conscious of the rhetorical choices writers make in different writing situations.

Genre, Adaptation and Hybridity
ENGL 9017 3 cr.
In this course we will study writers who create literature in more than one genre or who defy genre by destabilizing fixed systems of classification. Artistic combinations include poet/novelist, poet/musician and novelist/screenwriter. There are three sections to the course. First we will consider an author's thematic and stylistic consistencies from one genre to another, as well as his or her reasons for choosing to write in one particular genre. Second we will consider the links between originals and adaptations. The final section of the course examines hybridity as a concept in identity and its corresponding multi-generic textual expression.

Shakespeare's Major Plays
ENGL 9020 3 cr.
This course examines Shakespeare's major plays in relation to the culture and interpretive concerns of both Shakespeare's world and our contemporary one. Special emphasis is placed on his works as read, taught, performed and constructed in regard to power, gender, class and literary aesthetics.

Revisiting the Romantics
ENGL 9035 3 cr.
This course emphasizes the work of romantic era writers (1780-1830). Students examine the key aesthetic and political debates of the time through an analysis of essays, poetry, novels and plays. Authors include such writers as Mary Wollstonecraft, Mary Shelley, William Godwin, Dorothy and William Wordsworth, Coleridge, Keats and Byron.

The Quiet Revolution: 19th-Century American Women Writers
ENGL 9036 3 cr.
This course considers texts by Matilda Joslin Gage, Sarah Orne Jewett, Harriet Jacobs, Harriet Beecher Stowe, Ida B. Wells and others. Students learn how these women used essays, magazine and newspaper columns, novels, short stories and slave narratives as a public forum for discussing issues such as sexism, racism, the reform of labor, marriage, property, voting and education.

American Renaissance: Works by Hawthorne, Poe, and Others
ENGL 9037 3 cr.
This course looks at fiction and poetry by several great American writers of the mid 19th century. Readings will explore the revolution that took place in the treatment of nature and science in the middle of that century.

Mark Twain and American Humor
ENGL 9040 3 cr.
This course surveys several of Twain's works, with a focus on his performance as a humorist and as a wry commentator on and critic of American life. The course explores Twain's treatment of such serious issues as race and cultural conformity through the medium of laughter. Humorists who share the Twain legacy, such as Kurt Vonnegut and stand-up comics, are also studied.

American Art and Literature 1800-1860
ENGL 9046 3 cr.
This course explores the relationship between the "plastic" art and the literary art of the new nation. Students learn to identify the forces that inspired imaginative production in both art forms during the period that attempted to define the American style. Slides of paintings as well as literary texts are studied.

Women in European Literature
ENGL 9047 3 cr.
At the center of this course are texts by women authors from various European countries written during the 18th through the 20th centuries. Students consider the kinds of writings published by women, their audiences and motivations and the accessibility or popularity of their writings. Close analysis and discussion of individual texts lead students to consider variations of these factors between countries and time periods.

Multicultural Children's Literature
ENGL 9048 3 cr.
This course focuses on contemporary multicultural children's literature and requires students to learn and apply appropriate interpretive strategies for understanding texts and cultural contexts. Students gain and demonstrate a firm understanding of the major critical issues regarding multicultural children's literature and formulate and support personal responses to these issues.

The World Novel to 1914
ENGL 9049 3 cr.
This course examines significant novels outside the American/English literary canon in translation representing the development of the form. Selected authors may include comic, romantic (Sand), realist (Balzac, Flaubert), and psychological (de Assis, Micha'lis).

American Historical Fiction: Practice and Theory
ENGL 9050 3 cr.
This course typically examines several sub-genres of the American historical novel, looking in each case at multiple primary text and excerpts from scholarly approaches to the sub-genre. At the broad level, this course's goal is to help us think about how we read and define a literary genre, both in terms of our own individual analyses and the ongoing critical conversation; concurrently, or specific goal is to develop working definitions for both the "American" and the "historical fiction" contained within our title. Studied authors may include Nathaniel Hawthorne, Charles Chesnutt, William Faulkner and Leslie Marmon Silko.

20th Century British and American Poetry
ENGL 9052 3 cr.
This seminar explores the works of poets such as Auden, H.D., Lowell, Plath, Roethke, Kinnell, Rich, Heaney, Bishop, Walcott and Hughes. Students make presentations on assigned topics and may also be required to attend live and filmed poetry readings.

Modern Irish Literature
ENGL 9055 3 cr.
This seminar concentrates on major works by Irish poets such as Yeats, Heaney, Muldoon; Irish fiction writers such as Joyce, O'Connor, O'Faolain; and Irish playwrights such as Synge, O'Casey, Friel.

Contemporary World Literature
ENGL 9058 3 cr.
Particular emphasis in this course is placed on authors who write to effect changes in our perceptions of the other so we may understand the otherness of ourselves. Authors studied include: Conrad, Forster, Achebe, Gordimer, Fugard and others.

The Shapes of Modern Drama
ENGL 9059 3 cr.
In this seminar students read plays from such traditions as the realist, the symbolist and the expressionist, including works by Yeats, Pirandello, Beckett, Pinter and Mamet.

Women Writers Around the World: Stories of Maturation and Initiation
ENGL 9060 3 cr.
Students take a global approach to women's stories of growing up found in autobiographies, novels, short stories, and poetry. This course includes works by authors such as Toni Cade Bambara, Nawal El Saadawi, bell hooks, Leslie Marmon Silko and Jeanette Winterson. Much of this literature is appropriate for use in the high school classroom.

Africa Through the Novel
ENGL 9061 3 cr.
Students read, examine and discuss texts by African writers who have (re)constructed, in their imaginary worlds, specific and multiple visions of African life. All texts were written in the 20th century, although some portray periods prior to that time. Emphasis is on characteristics of style, politics and culture evoked in these works and aspects of contemporary literary theory pertaining to African literature today.

Canon Formation in African American Literature
ENGL 9063 3 cr.
This course examines texts by African American writers who have (re)constructed in their imaginary worlds specific and multiple visions of African-American life. All of the texts read in this course were written during the 19th and 20th centuries, but some of them involve historical periods prior to these times. Others are informed by variations of historical consciousness of the past/present/future.

Three American Literatures: Native American, African American, and Asian American
ENGL 9064 3 cr.
The focus of this course is on relationships between culture and society as works by three groups of Americans are considered within historical, ethnic and cultural backgrounds. Discussion may concern questions of identity, family, initiation, politics and ideology, education, gender, aggression and violence. Special attention is paid to the novel as a popular art form in aesthetic and social terms.

Women in Contemporary Society
ENGL 9065 3 cr.
Women as a force in society are the focus of this cross-discipline course. The political, social and economic issues concerning women are subjects for student research. Areas explored include anthropology, business, education, history, literature, philosophy, psychology, sociology, science and the arts. Students also consider the role of cultural diversity (both nationally and internationally) in the scholarship of women.

Latin American Novels
ENGL 9066 3 cr.
This course offers an introduction to the literature of the various cultural areas of Latin America. Such authors as Gabriel Garcia Marquez, Jorge Amado and Miguel Angel Asturias are studied in their English translations. The roles of the church and the Latin American family are examined as well as the image of tropical nature. Comparisons to English/North American literature are made when useful.

Asian English Literature in Cultural Context
ENGL 9067 3 cr.
This course covers selected works, mostly fiction and memoir, of American, Canadian and British writers of Asian ancestry including Maxine Hong Kingston and Gail Tsukiyama. We gain familiarity with the Asian cultural framework of the writers in order to understand differences with western traditions and expectations.

Topics Course
ENGL 9075 3 cr.
Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest.

Independent Study
ENGL 9080 3 cr.
Independent study provides special individualized study under close supervision for students excelling in scholarship.

Master's Thesis Research
ENGL 9100 3 cr.
The student researches in depth a topic of their own interest in English. Students who successfully complete this course should enroll in ENGL 9200 Master's Thesis Writing.

Prerequisite: Signed permission from the Graduate English Chair.

Master's Thesis Writing
ENGL 9200 3 cr.
Using the research developed in the Master's Thesis Research course, the student will write a master's thesis under the guidance of a faculty member and following the Graduate English Thesis Guidelines.

Prerequisite: Signed permission from the graduate English chair and Master's Thesis Research.

Clinical Experience
ENGL 9400 6 cr.
See BIOL 9400 for course description.

Internship
ENGL 9500 6 cr.
The internship is a clinical, capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. It should incorporate all standards specific to the discipline of English as well as all common standards for classroom teachers (section 7.04). Students must fulfill a minimum of 400 clock hours or one full semester on site under the auspices of the university.

Exercise and Sport Science

Foundations of Outdoor-based Adventure Education
EXSS 7000 3 cr.
This course will introduce the foundational philosophies, practices, and personalities in outdoor-based adventure education. This will include the historical development of experiential/adventure education and a look at legal issues, ethics, objectives, and trends in experiential education.

Programs in Outdoor-based Adventure Education
EXSS 7500 3 cr.
This course will introduce students to several different programs that employ Adventure Education as a modality to affect change in individual students and within diverse groups through selected readings, case studies, and on-site visits.

Essential Skills of Outdoor-based Adventure Education
EXSS 8000 3 cr.
This course will focus on several of the nationally recognized core skills for any Outdoor Adventure Educator, including first aid, CPR/AED, land navigation, trail biking, trip planning, and other basics of teaching and leading in the outdoors.

Leadership in Outdoor-based Adventure Education
EXSS 9000 3 cr.
This course will examine and introduce diverse leadership styles commonly used within experientially-based outdoor adventure programs. Through program instruction, students will learn how these styles are utilized to best fit the developing group dynamics while facilitating change and learning on both a personal and intra-personal level.

Internship Experience in Outdoor-based Adventure Education
EXSS 9500 3 cr.
This course will require students to observe and assist an established outdoor-based adventure program of their choice. This practicum will involve the students developing their own academic contract with identified learning objectives utilizing current adventure education or adventure recreation practices and standards.

History

From Weimar to Hitler: Germany 1918-1945

HIST 7010 3 cr.

This class, run as a seminar with joint student/faculty leadership, traces the developments that led to the collapse of the Weimar Republic and the National Socialist acquisition of power in Germany. Issues covered include social and economic trauma after the first World War, the relationship between state and society in the Weimar Republic, political fragmentation, the reaction against modernist culture, the National Socialist power, everyday life in National Socialist Society, women and National Socialism, racist ideology and extermination.

The Modern Secondary School

HIST 7012 3 cr.

This course is required of all MAT candidates who do not have initial licensure to teach and covers a broad range of issues faced by teachers in today's secondary schools. Students become familiar with the complexities and demands of secondary school teaching. The course includes 25 hours of prepracticum experience.

American Civil War and Reconstruction

HIST 7030 3 cr.

This course examines the American Civil War through lectures and comparative readings in order to understand the causes of sectional conflict, the war and its aftermath. Major themes include abolition, African-American resistance to slavery, war strategy and the social and political impact of Reconstruction.

Introduction to Public History

HIST 7040 3 cr.

The course examines the central issues involved in the various fields of public history. Students learn how to apply their academic history training to a broader range of professional and educational applications—museums, historical agencies, and historic preservation organizations. Students learn about specific functional strategies employed by public historians including oral history, exhibition planning and design, and collections management as they develop an understanding of the ethical debates about collecting, exhibiting, and interpreting historical materials.

Genocide in World History

HIST 7100 3 cr.

This course focuses on Genocide in world history. The class begins by investigating the definition and different possible origins of genocide. The class then examines major causes of cases of genocide including the Armenian Genocide, the Holocaust, Cambodia, and Rwanda. The class concludes by focusing on genocide today and the prevention of genocide.

The U.S. Women's Rights Movement Since 1820

HIST 7150 3 cr.

The class, run as a seminar with joint student/faculty leadership, traces the development of the women's rights movement from its roots in the abolitionist movement to its present status in the feminist movement. Issues covered are abolitionism, woman suffrage, temperance, labor, peace, reproductive rights and general rights. Students investigate issues, ideologies, strategies, tactics and personalities. Research involves biographies, organizational histories and/or analysis of political theories and strategies. The course provides students with the knowledge to incorporate new teaching materials about women's history into U.S. history courses and to gain a broader understanding of women as actors in U.S. politics.

Beyond Antiques: Artifacts and History

HIST 7200 3 cr.

American material culture—personal and domestic artifacts, buildings and historic landscapes can tell us much about life in the past. Through a combination of readings, object studies and field trips, students survey different modes of investigation: social and cultural history, history of technology, cultural geography, historical archaeology, folklife studies, art history and decorative arts studies. The seminar tests the applicability of these disciplines, methods, and theories to specific spheres of activity and thought, including community, class, work, house and household, clothing, dining, landscape and play.

Judaism and Early Christianity

HIST 7250 3 cr.

This course offers an overview of the formative period of development of both Judaism and Christianity, from 300 BC to 500 CE. It explores a variety of factors that led Christianity to break away from Judaism and its transformation into the single most powerful religious movement in the Mediterranean region. Readings in both primary and secondary texts (translated into English) provide vantage points to examine various aspects of the spread of Jesus movement within the contexts of social unrest, competition among ethnic minorities, and the socio-economic reasons that led to the dissolution of the Roman Empire.

Middle East History

HIST 7260 3 cr.

This course surveys Middle East History from its beginnings to the present. The course explores religion, politics, social institutions and gender history of Muslim civilizations as its expansion and confrontation with other civilizations sharpened its own self-image. The methodology of this course is interdisciplinary, including archeology, comparative literature, cultural and social history, and religious studies. Particular attention will be paid to the countries of the Middle East as they developed after World War I and how the various coalitions of the Arab nations were formed in response to Western European interventions. Emphasis will be placed on international politics and the hidden agendas involving defense, oil, economics and security between Western Europe and the Middle East alliances.

Amerindian History

HIST 7270 3 cr.

This course studies Amerindian history from the earliest settlement through the 19th century, including, religion, politics, social institutions and gender history of Amerindian cultures. The methodology of this course is interdisciplinary, including archeology, linguistics and comparative literature, cultural and social history and religious studies. We shall examine the social reasons for the first migrations and local developments in many regional areas using archeology and social histories of various archeological cultures and historic tribes.

Irish History

HIST 7280 3 cr.

This course examines the history of Ireland from its beginnings to the present. It focuses on the cultural history of Ireland as it evolved through a series of waves of immigration since ancient times, which created new cultural mixes and confrontations. The course explores religions, social and political institutions and gender history of this island, which provided a haven for a variety of immigrants from ancient times. The methodology of this course is interdisciplinary, including archeology, comparative cultural and social history, and religious studies. We shall examine the diversity of Irish social and cultural origins and investigate how these contribute to the formation of an Irish identity. The story of competing mores will be examined in the tensions, which are apparent in the modern history of Ireland today.

Modern Russia: Rebirth and Renewal

HIST 7300 3 cr.

The course is a survey of several major historiographical problems in modern Russian history from the reign of Peter the Great through the revolutions of the 20th century with a focus on cultural and political history. Also emphasized, however, are teaching strategies and tactics at the secondary level designed to prepare students for the MCAS history examinations.

Historiography

HIST 7450 3 cr.

Historiography or the historian's craft is addressed by considering how a historian discovers facts and formulates them into hypotheses, how the historian's craft has changed over the course of time; and how different historians handle the same era or subject matter. The course enables students to read a piece of secondary source writing and analyze the author's perspective and biases, analyze and understand a primary source document, write a paper using primary source material, understand historians' work within their own historical era and appreciate the subjective as well as objective nature of historical research.

In any particular semester, the instructor chooses one of two forms for the course : a) a survey and analysis of various historians' work, their approaches and their tools, or b) a study of historians' methods and a research paper based on primary source research putting these methods into use.

Advanced Special Methods in Teaching History

HIST 7850 3 cr.

This course introduces candidates to current theories, methods, and standards of history education, with an emphasis on their practical application to social studies curricula. Course includes a 25 hour pre-practicum requirement.

Prerequisite: HIST 2860 or SEED 7012 and SPED 3800 or SEED 7016

Advanced Methods of Teaching at the Secondary Level

HIST 8000 3 cr.

This course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: HIST 7012 or initial teacher licensure.

Modern Japan and East Asia

HIST 8010 3 cr.

This course examines modern Japan from the Tokugawa shogunate and Meiji Restoration to the present. Major themes include the interaction between Japan and East Asia, its relationship with the U.S., and the impact of industrialization and militarization, as well as the economic dominance of the post-WWII era and the collapse of the bubble economy in the 90s.

Practicum

HIST 8090 1-6 cr.

Student teaching experience is offered to give practical classroom experience to those degree students who have not satisfied the state requirements for certification.

Curriculum and Technology

HIST 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. This course explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues.

Curriculum Design & Development

HIST 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise, and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise, and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Topics in History

HIST 9000 3 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest.

The Vietnam War: An International Perspective

(Formerly titled The Vietnam War and Society)

HIST 9210 3 cr.

A graduate seminar which examines the Vietnam War from an international perspective. Surveys the historical background to conflict in Vietnam. Major themes: history and culture of Vietnam, early conflict with China, French colonialism, US diplomatic involvement, origins of American military involvement, POW-MIA issues, Paris peace talks, and post-war memorialization, and resumption of US-Vietnamese relations.

Clinical Experience

HIST 9400 6 cr.

See BIOL 9400 for course description.

Internship

HIST 9500 6 cr.

The internship is a clinical, capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. It incorporates all standards specific to the discipline of history as well as all common standards for classroom teachers. Students must fulfill a minimum of 400 clock hours or one full semester on site under the auspices of the university.

Action Research Internship

HIST 9550 3 cr.

This course is a capstone experience allowing integration and application of content knowledge and pedagogical theory and practice. A research project is completed during the internship, and the final product is an action research paper.

Prerequisite: EDUC 8300.

Interdisciplinary Studies

Critical Inquiry in Interdisciplinary Studies
IDIS 8000 3 cr.

The course is designed to enhance students' abilities to read and listen critically, to respond reflectively to arguments offered by others, to distinguish between successful and unsuccessful arguments, and to generate well-formed arguments of their own. In a broad sense, the course is intended to introduce students to philosophical argumentation and reflection, and to develop skills of reading, writing, and argumentation that are valuable in a number of academic and everyday contexts.

Advanced Research Methods
IDIS 9000 3 cr.

This course will build on the background and skills students develop in master's level programs. The course will include a review of the range of research methodologies commonly used in education and the social and behavioral sciences. It will examine the different types of research generally used in those fields, including case studies, causal-comparative research, action research, experimentation and survey research. This course should be taken midway through the plan of study so that the student will be able to use the class to develop a methodology specific to a thesis or action research project he or she plans as a capstone to the individual curriculum. The course will assist the student in developing focused research questions, as well as problem identification and significance. Further, the student will develop a comprehensive literature review and methodology for the capstone project.

Women in Contemporary Society
IDIS 9065 3 cr.

This course is an introductory graduate level course on issues of concern to women. The class examines women's economic, social, and political roles in society. Ethnic diversity and international comparisons are also discussed.

Internship in Interdisciplinary Studies
IDIS 9400 6 cr.

The internship is a capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. Students must fulfill a minimum of 400 clock hours or one full semester on site under the auspices of the university.

Graduate Thesis
IDIS 9500 6 cr.

Students meet the requirements as outlined in the Graduate Thesis Guidelines Handbook. In order to complete this phase of the program, a faculty committee is to be established by the student under the guidance and supervision of the graduate advisor.
Note: See thesis description under program of study section of the Interdisciplinary Studies Program Description.

Management

Selected Seminars in the Not-for-Profit Organization
MGMT 7000 1 cr.

Selected seminars examine trends, current research and contemporary issues in the not-for-profit organization. Seminars vary from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest. Topics include Public Funding, Social Security, Facilities, Contract Law, Grant Writing, Program Development, Board Development, Fundraising, Museum Management, Management of Change, History of the Public Good, American Culture and the Rugged Individual and Information Technology systems.

Quantitative Methods for Business
MGMT 7001 3 cr.

The course provides an overview for students with a limited quantitative background. The focus is on statistics and includes algebra and an introduction to calculus. Topics include sample distribution, confidence intervals, hypothesis testing, analysis of variances, derivatives, logs, linear programming and regression analysis.

Accounting for Graduate Students
MGMT 7002 3 cr.

The course provides an intensive study of financial and managerial accounting for students with no previous background in accounting. Topics include collection, reporting, and interpreting of financial information and statements, break even analysis, budgets, manufacturing and standard costing and variance analysis.

Foundations of Finance/Economics
MGMT 7003 3 cr.

Topics of finance/economics include mathematics of finance, liquidity management, capital budgeting, liability management and value creation. Fundamental concepts of micro- and macroeconomics are rigorously developed.

Foundations of Management/Marketing
MGMT 7004 3 cr.

Foundations of Management/Marketing provide a broad conceptual background of fundamental knowledge in management and marketing for graduate students who have not completed academic work in these subjects.

Management of the Global Environment
MGMT 9002 3 cr.

The course provides students with the background to understand global strategic business problems demands and pressures from governments, unions, consumers, and others in foreign countries as well as from domestic stockholders. Studies emphasize U.S. control of multinational and foreign companies and the effect upon international competition.

Quality Management Theory
MGMT 9008 3 cr.

This course studies the concepts, practices and methods of modern quality management in both manufacturing and services. Topics include history, concepts, dimensions of quality, measurement and control, statistical quality control, information systems and auditing for quality.

Prerequisite: BSAD 3200.

Economic Theory and Managerial Decision Making
MGMT 9020 3 cr.

This course presents the principles, concepts and tools of economic analysis that are necessary for proper management planning. Its aim is to improve the understanding of how a market economy operates and to familiarize students with the tools that are useful in making economic decisions and in solving economic problems.

Prerequisites: BSAD 2110, ECON 1200.

Accounting Theory
MGMT 9030 3 cr.

The course develops an understanding of the theories and concepts which provide the foundation for accounting.

Prerequisite: admission to accounting track or 24 undergraduate credits in accounting.

Advanced Financial Accounting Issues

MGMT 9032 3 cr.

This course affords students the opportunity to examine current issues including ethics, accounting and auditing research techniques, international accounting issues and other relevant current topics.

Prerequisite: admission to accounting track or 24 undergraduate credits in accounting.

Selected Topics in Advanced Managerial Accounting

MGMT 9034 3 cr.

Students are introduced to issues in the current environment, such as international influences on U.S. management practices, business ethics and technology changes and their impact on the managerial structure through a series of readings and cases.

Prerequisite: admission to accounting track or 24 undergraduate credits in accounting.

Accounting Information Systems

MGMT 9036 3 cr.

This course integrates the accounting process into the total information system. Students analyze the problems involved in the design and installation of information systems, including computer feasibility studies and systematizing the clerical functions of an organization. Course material describes the inter-relationship of internal controls, classification of accounts and functions, and reporting to provide relevant information and yet optimize the control function.

Prerequisites: BSAD 1700, MGMT 7002.

Organizational Behavior and Development

MGMT 9040 3 cr.

This course relates the knowledge of human behavior to the problems of organizational life. It examines individual behavior as well as group and social behavior in organizations. The course encourages discussion of the methods of changing behavior through organizational development.

Prerequisite: BSAD 3200.

The Human Resource Function and the Manager

MGMT 9050 3 cr.

This course provides knowledge of the human resource from the manager's perspective. The student develops an understanding of the role of personnel specialists. Topics covered include job analysis, employee selection, training, appraisal, promotion and discipline within the context of recent legal developments.

Prerequisite: BSAD 3200.

Management Information Systems

MGMT 9060 3 cr.

This course provides insight into the problem of identifying an organization's informational requirements to facilitate the decision-making process. Topics presented include an analysis of information systems, communication theory, information flow, methods and procedures for gathering, disseminating and controlling information.

Prerequisite: BSAD 1700.

Legal Issues in Human Resources Management

MGMT 9070 3 cr.

This course is designed to provide human resources professionals and other managerial professionals with an understanding of labor and employment law, the sources of this law and how they may apply in the employment setting.

Management Theory and Process

MGMT 9080 3 cr.

This course examines management theory as an evolving body of knowledge influencing managerial practices. Management theories are compared and contrasted with the goal of understanding the assumptions and applications of each. Within the context of theoretical models, attention is directed to the differences in the environment in which firms must operate.

Prerequisite: BSAD 3200.

Production and Operations Management

MGMT 9090 3 cr.

The course covers system design and layout, job design and work methods, plant location and product development, scheduling and methods of control. The quantitative management techniques of capital budgeting, forecasting inventory methods, program evaluation review techniques (PERT), and decision theory are utilized.

Prerequisite: BSAD 3200.

Business and Society

MGMT 9100 3 cr.

The course studies the various external environmental factors which affect managerial decisions. The course views the environment as a complex set of interrelated economic, legal, political, social, and cultural influences, which impact the organization through its public or constituencies. Through case analysis the student gains insight into the complicated interrelationships that exist between the organization and its environment.

Prerequisites: BSAD 3500, ECON 1200.

Legal Environment of Business

MGMT 9130 3 cr.

This course considers the legal questions arising out of doing business nationally and internationally. It is a study of the interrelationships among laws as they affect individuals and business organizations. The course provides the student with an awareness of how legal problems and their solutions can influence the direction of a business.

Prerequisite: BSAD 3500.

Marketing Management

MGMT 9160 3 cr.

The course embarks on a detailed study of concepts and procedural alternatives in the delineation of the market target. In addition, the course covers the development and implementation of the marketing mix and the control and analysis of the total marketing effort.

Prerequisite: BSAD 3300.

Corporate Finance

MGMT 9170 3 cr.

The course examines principles of decision analysis in management of current assets, estimation of requirements for short term funds, and valuation of capital budgeting and merger proposals.

Prerequisite: BSAD 3400, MGMT 7001, MGMT 7002.

Accounting Practices for Managers

MGMT 9180 3 cr.

The course provides a study of financial reporting systems. Emphasis is given to the interpretation and uses of information contained in financial reports.

Prerequisite: MGMT 7002.

Managing the Not-for-Profit Organization

MGMT 9200 3 cr.

Focus on examining the administrative functions and their relationship to organizational effectiveness and efficiency. External and internal politics of agency survival are addressed, and theoretical and practical concepts of management and leadership are explored.

Program Planning and Evaluation of the Not-for-Profit Organization

MGMT 9210 3 cr.

Social services agencies, foundations, churches, museums, schools, professional associations and public enterprises comprise the vast array of non-profit organizations. The purpose of this course is to examine and apply the principles of program evaluation for the non-profit organizations.

Health Services Marketing

MGMT 9250 3 cr.

The focus is on exploring marketing principles and applications to management decisions in the healthcare industry using case analysis. Topics covered include product development, pricing, distribution, consumer behavior, forecasting and development of marketing plans. Pre-requisite: BSAD 3300 or permission of instructor.

Legal & Ethical Issues in Health Care

MGMT 9251 3 cr.

Examination of law impact on public health, role of legal institutions, individual rights, basic principles of medical decision-making, medical liability, basic regulatory aspect of health care delivery, universal health coverage, impact of technology and human rights issues.

Health Care Management

MGMT 9252 3 cr.

Studies major social and economic aspects of illness and the health care industry. The focus is on exploring how management principles apply to decisions in the healthcare industry using case analysis. Topics covered include economic, social, cultural, and psychological influences and responsibilities of the patient and focusing on application of these concepts to the healthcare organization.

Cost Control in Health Care

MGMT 9253 3 cr.

The focus is on exploring how cost control principles apply to management decisions in the healthcare industry using case analysis. Topics covered include an overview of financial management, tools such as accounting and cash flow analysis, financial statement analysis, the risks and returns associated with the financial market, capital budgeting and forecasting with a focus on the application of these concepts to the healthcare organization.

Pre-requisite: BSAD 3400

Financial Analysis

MGMT 9310 3 cr.

This course provides for an intensive examination of financial accounting theory and practice. It includes the valuation of assets and liabilities, accounting for stockholders' equity, measurement and reporting of earnings, the flow of funds, an investigation of the evolution and current status of accounting theory and financial reporting.

Prerequisites: MGMT 9170, MGMT 9180.

Labor Management

MGMT 9320 3 cr.

This course analyzes the development and impact of collective bargaining on the work force and the organization. Consideration is given to public policy as well as environmental forces. The negotiation and administration of labor agreements is covered.

Prerequisite: MGMT 9080.

Marketing Communications

MGMT 9330 3 cr.

This course presents the elements in the marketing mix that deal with the promotion of goods or services. The course covers advertising, sales promotion, public relations and publicity. The characteristics of each form of promotion are evaluated with respect to varying market situations. The focus of the course is on the managerial aspects of communication design, development, implementation and appraisal.

Prerequisite: MGMT 9160.

Selected Topics in Management

MGMT 9450 3 cr.

This course emphasizes trends, current research and contemporary problems in management. Students research, discuss and present reports on problems in management. (Course may be repeated twice with different topics with approval of chair of MBA Graduate Committee.)

Prerequisite: core requirements.

Strategic Management

MGMT 9500 3 cr.

This course provides a study of administrative processes dealing with the formulation of policy. Topics covered include strategy formulation, the role of the general manager, and the design of strategic planning systems. Attention is focused on problem identification, problem solving and decision-making. Extensive examination is made of cases involving a variety of institutions in both the public and private sectors.

Prerequisite: at least 21 graduate hours completed or permission of chair.

E-Commerce

MGMT 9600 3 cr.

This electronic business course develops students' understanding and management of new ways of strategic thinking, marketing and doing business in the digital economy. The course is targeted to individuals who will pursue leadership positions in electronic business and Internet marketing groups, whose business and strategic models are changing dramatically. Students should have a familiarity with the Internet and have completed courses in marketing and management.

Internship in Management

MGMT 9700 3 cr.

Students will intern in a business or other administrative body in a managerial role. The course is intended to expand the student's knowledge of managerial practices and may not be a continuation of an existing position.

Prerequisite: Completion of 21 graduate level semester hours in MBA program.

Mathematics

Number Theory

MATH 7000 3 cr.

This course is a formal study of the classical theory of numbers including such topics as divisibility, primes, congruency, Diophantine equations, number theoretic functions and quadratic reciprocity.

The Modern Secondary School

MATH 7012 3 cr.

This course is required of all MAT candidates who do not have initial licensure to teach and covers a broad range of issues faced by teachers in today's secondary schools. Students become familiar with the complexities and demands of secondary school teaching. The course includes 25 hours of prepracticum experience.

Technology in the Classroom

MATH 7100 3 cr.

This course is a study of the various ways in which technology can be used in the K-12 classroom. Students will perform and develop lessons based on calculators, graphing calculators, computer graphing and algebra software such as Mathematica and Geometer's Sketchpad, and become familiar with the uses of the Internet in the K-12 setting.

History of Mathematics

MATH 7200 3 cr.

Students will study the development of mathematical ideas, from ancient to modern times, and their relevance for other fields of knowledge. Special attention is given to several of the most important original writings in mathematics.

Geometry

MATH 7300 3 cr.

This is a formal study of basic and advanced concepts of Euclidean, non-Euclidean and projective geometry.

Mathematical Modeling

MATH 7400 3 cr.

The designs of mathematical models for solving problems in the physical, social and life sciences are examined. Emphasis is on the use of mathematics in such problems as traffic flow, group decision making and queuing.

Discrete Algebraic Structures

MATH 7450 3 cr.

A study of discrete algebraic structures is part of this course. Topics include: Set theory, Boolean algebra, partial orders, equivalence relations, recursions, functions, graph theory, finite automata and combinatorics.

Advanced Methods of Teaching at the Secondary Level

MATH 8000 3 cr.

This course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: MATH 7012 or initial teacher licensure.

Practicum

MATH 8090 3 cr.

See BIOL 8090 for course description.

Analysis

MATH 8100 3 cr.

This course is a careful development of the core analysis topics of limits, continuity, differentiation, integration, and sequences and series. Both the real number setting and the complex numbers will be considered.

Probability

MATH 8200 3 cr.

Topics include discrete and continuous random variables, expectations, variance, covariance, probability density functions, moment generating functions and classical probability distributions.

Curriculum and Technology

MATH 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. This course explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues.

Curriculum Design & Development

MATH 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise, and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise, and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Abstract Algebra

MATH 8300 3 cr.

Students will study algebraic structures including groups, rings, integral domains and fields. Topics include homomorphisms, factor rings and factorization domains.

Topics in Advanced Mathematics

MATH 8900 3 cr.

Courses having a more narrow focus or those taught on an irregular basis may be offered. New courses may be taught on an experimental basis under this title.

Clinical Experience

MATH 9400 6 cr.

See BIOL 9400 for course description.

Internship

MATH 9500 3 cr.

See BIOL 9500 for course description.

Math Education

Algebra for the Elementary School Teacher

MTED 8001 3 cr.

This course is designed to strengthen the elementary school teacher's knowledge of topics in algebra and how to apply this knowledge in the classroom. Topics will include numeration and number theory; algebraic expressions; equations and inequalities; relations and functions; graphing relations and functions; and polynomial and rational functions.

Music

Opera

MUSC 7200 3 cr.

This course is a survey of Italian opera from Monteverdi to the 20th century. The course will explore librettos, music, staging, casts and the cultural and social context in which the works were created. Projects will include reviews of performances on video, analysis and discussion of representative works, and the attendance of a live opera performance. This is a music distribution course.

Nursing

- All 7000 level graduate nursing courses are open to licensed RNs
- NURS 8000 is open to all licensed RNs
- NURS 8000 is open to non-RNs by permission of the instructor
- Any graduate nursing courses with clinical components are open to matriculated graduate students and require on file health requirements

Nursing with Diverse Populations

NURS 7000 1 cr.

This course focuses on concepts of culture, ethnocentrism and diversity. The impact of cultural sensitivity on role enactment as an advanced practitioner is explored. Case studies are used to facilitate examination of values and beliefs.

Nursing Theory

NURS 7200 3 cr.

The course examines the process of theory development in nursing as a necessary tool to provide guidelines for advanced practice, as well as to foster a deeper understanding of the discipline as a whole. The concept of diversity in relation to theories is also included. Students have the opportunity to evaluate current theories in nursing and to explore one theory in depth.

Advanced Clinical Concepts

NURS 7300 3 cr.

This course provides the opportunity to validate current clinical skills and develop advanced professional decision-making. Clinical issues, such as performance evaluation, collaboration, physical assessment and ethical considerations are addressed. A clinical component provides the opportunity to increase skills in critical thinking, processing data, and clinical decision-making. This course includes a clinical component of 60 hours.

Prerequisite: NURS 7000.

Contexts and Roles for Advanced Practice

NURS 7400 3 cr.

Students acquire a framework for understanding the interplay of political, social, and economic factors in health service delivery and their relationship to the advanced practice role in nursing. The focus is on initiating and facilitating change in health care and nursing systems. Topics include health care economics, health planning and policy, diversity in health care delivery, use of health status indicators for risk assessment of individuals and groups, informatics, role theory application to role assimilation, role creation, role negotiation and educator advocate, consultant, and researcher.

Health Care Informatics

NURS 7600 3 cr.

This course provides an overview of the role of information systems in health care. Current technologies and their impact on health care practice are explored. Organizational, cost-benefit, and ethical issues related to the application of technologies are discussed. Topics include medical devices, electronic health record, key health information systems and standards, telemedicine, administrative and clinical applications, evidence based health care, decision support systems, security and confidentiality, and information retrieval.

Nursing Research

NURS 7700 3 cr.

This course provides students with an overview of the design and methodology of qualitative and quantitative research as applied to professional nursing practice. Topics of study include critical analyzing and evaluating research literature, non-experimental, quasi experimental research design, phenomenological, grounded theory and ethnographic qualitative design, analysis and interpretations of findings including the application of statistical methods in quantitative data analysis. Ethical considerations will be discussed along with implications for professional practice.

Prerequisite: A graduate level nursing theory course.

Introduction to Forensic Nursing

NURS 8000 3 cr.

This course establishes the foundation for forensic decision making in advanced nursing practice with an emphasis on a holistic approach to living victims and perpetrators. The relationship between sociocultural factors and violence is explored. This course also includes an incisive exploration of the principles and philosophies of clinical forensic nursing as well as the role of the forensic nurse in the scientific investigation of violence, trauma, medical-legal and ethical-legal issues.

Scientific Foundations for Forensic Nursing Interventions

NURS 8130 3 cr.

This course provides a comprehensive overview of specialized topics in clinical forensic practice as a foundation for the advanced practice nursing role. Areas of exploration will include physical assessments and autopsy findings in forensic pathology, clinical laboratory tests and pharmacological usage. The complimentary roles of different professions in medical-legal investigative systems in relation to trauma and causes of death will also be identified. This course includes a clinical component of 60 hours.

Prerequisite: NURS 7000, 7400, 8000

Forensic Nursing: Caring for Victims

NURS 8200 3 cr.

This is a two-course sequence identifying the role of the forensic nurse in the care of victims and their significant others. Attention is given to understanding what happens to victims of assault and trauma. Interventions to prevent and treat are also explored. The legal, ethical, clinical, and advocacy responsibilities of the advanced practitioner are key concepts emphasized throughout these courses. This course includes a clinical component of 60 hours.

Prerequisites: NURS 7000, NURS 7400, NURS 8000

Forensic Nursing: Caring for Perpetrators

NURS 8300 3 cr.

This is a two-course sequence identifying the role of the forensic nurse in the care of perpetrators. Attention is given to understanding the etiology of perpetrators and interventions in current practice. The legal, ethical, clinical and advocacy responsibilities of the advanced practitioner are key concepts emphasized throughout these courses. This course includes a clinical component of 60 hours.

Prerequisites: NURS 7000, NURS 7400, NURS 8000

Criminal Law: Substantive and Procedural

NURS 8410 3cr.

This area of study examines both substantive and procedural criminal law. Within the context of the historical development and philosophy of law, students are introduced to the definitions and classification (s) of crime and their application to the system of criminal justice.

Forensic Science and Technology

NURS 8500 3 cr.

This course is an introduction to the forensic sciences designed specifically for the advanced practice clinical forensic nurse role. The course surveys the latest technology used in the criminal justice field for investigative procedures, crime scene analysis, interviews, surveillance, and evidence collection. The course is designed to balance the impetus of advancing technology within the boundaries and ethical dilemmas of the law. Topics include the recognition, collection and preservation of evidence, examination of victims, and documentation. The role of the forensic nurse in the multidisciplinary investigative systems will be stressed.

Research Thesis (Option 1)

NURS 9010 3 cr.

This course focuses on the application of the research process in clinical practice related to the student's specialty area. Emphasis is on the completion of a research thesis under the guidance of faculty.

Prerequisite: NURS 7700

Continuation of Research Thesis

NURS 9011 3 cr.

This course is a continuation of NURS 9100.

Research Project (Option 2)

NURS 9100 2 cr.

This course focuses on the application of the research process in the clinical practice related to the student's specialty area. Emphasis is on the completion of a research project under the guidance of faculty.

Prerequisite: NURS 7700

Continuation of Research Project

NURS 9101 2 cr.

This course is a continuation of NURS 9100.

Practicum in Forensic Nursing

NURS 9500 3 cr.

In this capstone course students select one or more areas of nursing practice to pursue in greater depth after consultation with faculty. Students find a clinical placement that gives them the opportunity for role negotiation and role development in the forensic nursing practicum. During the practicum, priority is placed on the development of leadership roles and interpersonal and psycho-motor skills needed to serve a selected client population under the preceptorship of an advanced practice nurse or related professional.

Prerequisite: all courses, corerequisite, nursing research thesis or project.

Occupational Education

Seminar and Practicum in Vocational Education/Special Education

OCED 6002 3 cr.

Students complete a practicum or internship in an approved setting for individuals with special needs. Students are assisted in implementing the various facets of their role within a given setting. Visitations by student advisor are planned not only to observe the competencies being demonstrated, but to meet with school administrators in defining the role and functions. Practicum seminar is designed to assist the total group in dealing with current concerns and issues and to allow students to learn from the experiences of each other.

Promoting Positive Social Behavior for Students with Special Needs in Vocational Education

OCED 6003 3 cr.

The course provides familiarity with the continuum of services required for students with special needs in all school settings. The modifications of approach and teaching techniques that make vocational education accessible to all students are discussed in depth. A case study is required of each student in the course.

Students with Special Needs in Vocational Technical Education

OCED 6004 3 cr.

The course traces the development of special needs programs with emphasis on the identification and understanding of special needs students in vocational schools. Particular attention is given to teaching techniques and administrative organization patterns utilized in a vocational school. Note: This is a required course for candidates seeking either Massachusetts Department of Education approval as a vocational technical instructor or special ed/voc ed mini-approval.

Strategies and Methods for Teaching Students with Special Needs

OCED 6005 3 cr.

The course uses a practical approach to planning instruction for special needs students in the regular class within a vocational school setting. Using a framework for applying theory in practice, teachers develop and/or attempt strategies that are applicable to their classrooms.

Implementation and Evaluation of Education Plans for Students with Special Needs

OCED 6006 3 cr.

The course provides experience in interpreting educational prescriptions for implementation within vocational training programs. Each student designs an individualized instructional plan describing all materials, recommended methodology and techniques of evaluation.

History and Philosophy of Occupational Education

OCED 7000 3 cr.

The course studies the leaders, organizations and movements that have contributed to the development of occupational education in the United States. Particular attention is given to the philosophies of past and present, along with the issues and problems that have affected occupational education.

Growing Agriculture in the Classroom

OCED 7009 3 cr.

Using Massachusetts farms as classrooms, educators will learn how agriculture can enhance their curriculum, meet required frameworks and become part of a multi-disciplinary hands-on curriculum in your classroom. The skills you will develop are: a strong background in current agriculture practices throughout Massachusetts; how to use agriculture in your lessons to reinforce MCAS concepts; how to strengthen your science background with the application of principles to actual agriculture; agricultural literacy. Educators will keep a journal, research topics in agriculture and create lessons for classrooms.

Seminar in Occupational Education

OCED 7050 3 cr.

The seminar is a critical study of selected current problems in occupational education. Participants apply recent readings, reports, products and research as tools to analyze strategies for strengthening the delivery of occupational education within a variety of settings. The group may also accept appropriate field-based projects which impact or otherwise address critical occupational education concerns.

Supervision in Occupational Education

OCED 7100 3 cr.

This course deals with several aspects of the role of supervisory personnel to demonstrate how educational supervision is a carefully structured leadership with responsibilities related to the improvement of instruction. In the context of a supervisory role, students examine in-service training, inspection, staff guidance, research and evaluation of personnel and curriculum concerns. Various levels of supervision and organization patterns are analyzed.

Evaluation in Occupational Education

OCED 7150 3 cr.

This course in educational evaluation is designed for graduate students who are pursuing an advanced degree in the field of industrial technology education, vocational technical education or a related area. Students receive instruction relating to the development and evaluation of written achievement tests. Further teaching is presented relative to basic descriptive statistics and parametric techniques.

Public School Laws Relating to Occupational Education

OCED 7200 3 cr.

The course is a study of federal and state laws pertaining to occupational education. Particular attention is given to the legislative process as it relates to current school law and to the judicial process in its interpretation of school law.

Addressing the Needs of Students with Disabilities in Vocational Technical Education

OCED 7230 3 cr.

This course will provide Vocational Technical educators at the graduate level with an overview of the Federal and State Special Education Laws and Regulations and how they are implemented in schools in Massachusetts. Students will learn about the elements of an Individualized Education Program (IEP) and the roles of special and general educators. Students will also learn how to design curriculum and instruction using the information on the IEP and how to modify their related classrooms and vocational technical shops/laboratories to accommodate students with disabilities. A research paper at the graduate level of competence will provide the basis for a class presentation.

Developing and Implementing a Standards-Based Curriculum in Vocational Technical Education

OCED 7232 3 cr.

This course is designed to provide vocational technical educators with the knowledge of the elements of a quality curriculum. Students will learn how to develop a vocational technical education curriculum and a competency-based student reporting system that incorporates the standards and performance indicators of the Academic and Vocational Technical Education Curriculum Frameworks.

Teaching Methods for Vocational Technical Education Using Research-based Practices to Develop Effective Instructional Strategies

OCED 7233 3 cr.

This course is designated to provide vocational technical teachers with an understanding of how learning styles impact instruction and learning. Vocational technical teachers will learn how to develop a teaching unit that focuses on readiness assessment, use of learning styles, attention to whole-brain teaching, interpersonal skills, knowledge and skill assessment.

Managing Student Behavior in a Healthy and Safe Environment

OCED 7237 3 cr.

This course is designed to prepare vocational technical teacher candidates to organize an instructional area that is conductive to high quality learning in a healthy and safe environment. A variety of discipline concepts and strategies will be presented for application in the shop/laboratory, related classroom, and cooperative education sites. Current, relevant OSHA and child labor law standards will be reviewed and plans for a comprehensive health safety plan will be developed. As a culminating assignment, students will be required to research a topic discussed in class and complete a 20 page research paper with a minimum of 5 references, double spaced, 12 font and using APA Format.

Teaching Methods for Vocational Technical Education Instructional Strategies

OCED 7238 3 cr.

This course is designed to provide vocational technical teachers with a researched-based teaching methods and instructional strategies. Students in this course will learn to develop advanced instructional plans of study and how learning styles, motivation, and expectations influences instructional choices made by the vocational technical educator. Students will learn how to integrate vocational technical and academic content by using a balanced instructional approach and accommodate issues addressed in IEP's. Planning for record keeping and evaluation.

Seminar for the Beginning Vocational Technical Education Teacher

OCED 7239 3 cr.

The seminar is a critical study of selected current problems in occupational education. Participants apply recent readings, reports, products, and research as tools to analyze strategies for strengthening the delivery of occupational education within a variety of settings. Including techniques for establishing effective classroom routines and procedures, student instruction and assessment, and for maintaining a positive classroom, shop, laboratory climate that conveys high expectations.

Teaching Methods for Vocational Technical Education—Educating and Assessing the Vocational Technical Education Learner

OCED 7240 3 cr.

This course is designed to prepare vocational technical teachers for Chapter 74 Licensure. This course will also equip teachers with the knowledge and tools necessary to instruct and assess the technical academic and employability skills of their vocational technical education students. Students in this course will be able to identify, develop and model appropriate learning activities and assessments for the vastly divergent student population in vocational-technical education.

Research and Statistics in Occupational Education

OCED 7250 3 cr.

This course is designed to enable occupational educators to plan research, write research reports and interpret statistical occupational education data. Each student is expected to demonstrate proficiency in educational research by designing a research project pertaining to one or more components of occupational education.

Curriculum Development in Occupational Education

OCED 7300 3 cr.

In this class, emphasis is placed upon the teacher as an innovative designer of strategies for planning curriculum. The process of designing and accessing model curriculum projects in occupational education is examined and explored in depth. Various curriculum development models are reviewed, evaluated and discussed.

Public School Finance in Occupational Education

OCED 7350 3 cr.

This course examines the basic accounting systems, state laws pertaining to finance, federal funding and laws and procedures regarding funding application approval. The course also offers information on central reimbursements from federal and state levels that affect education.

Advanced Methods of Teaching in Occupational Education

OCED 7400 3 cr.

The course is designed to review a detailed treatment of the nature of occupational education, the findings of modern learning theory and the impact these considerations have upon modern occupational education teaching.

Organization and Administration of Vocational Guidance

OCED 7410 3 cr.

This course provides the administrator, counselor and teacher with a working knowledge of the various tools, techniques, and practices which comprise a unified guidance organization.

Administration of Cooperative Education Programs

OCED 7420 3 cr.

This course analyzes current policies, practices and methods of conducting cooperative occupational education programs. An examination of national, state and local program administrative procedures is made through an analysis of literature related to cooperative occupational education.

Effective Teaching of Special Needs Students in the Vocational Environment

OCED 7430 3 cr.

This course is designed to review and focus on issues in vocational education that are equated with quality education and quality teaching. Although these issues are presented individually, the topics, when combined in practice in actual classrooms and shops, give a clear understanding of teaching and learning in a vocational situation.

Professional Development Workshop

OCED 7440 2 cr.

This state-of-the-art workshop is for occupational/vocational educators seeking to fulfill the 30 hour professional development requirement of the Division of Occupational Education.

Vocational Special Needs Seminar

OCED 7450 3 cr.

This course deals with current issues related to vocational special needs. Class discussions are also concerned with local, state and national special needs topics.

Computer Aided Drafting I

OCED 7600 3 cr.

This is a basic course in automated drafting emphasizes the utilization of computer assisted drafting (CAD) to generate typical manufacturing drawings. Knowledge gained through this course allows students to apply computer-assisted drafting to a wide range of technical drawings used in other fields such as architecture and topography.

Computer Aided Drafting II

OCED 7610 3 cr.

This course is a continuation of OCED 7600.

History of Technology

OCED 7620 3 cr.

The identification, definition and understanding of technology as the subject matter of industrial arts is analyzed in this course. Special emphasis is placed upon the implementation of a technology-based industrial arts program at the secondary level.

Principles of Automated Manufacturing

OCED 7630 3 cr.

The course studies the automation in manufacturing emphasizing computer control of production functions. Automated and manual approaches are compared and techniques for implementing automation are reviewed. Students are provided with the necessary computer background to support hands-on experience with assembly robots.

Principles of Automated Manufacturing II

OCED 7640 3 cr.

This course provides further consideration of automated manufacturing including production processes. More detailed study of present generation robots and potential advances is included.

Quality Control

OCED 7650 3 cr.

The principles and techniques of statistical quality control are developed and applied to typical manufacturing situations. Special consideration is given to quality control in automated manufacturing environments.

Material and Process Cost Estimating

OCED 7660 3 cr.

The philosophy, principles and practices of material and process cost estimating are studied, stressing data development and application methods for operation, product and project analysis. Topics such as labor analysis, material analysis, operation and product estimating are included.

Independent Study

OCED 9000 1-6 cr.

The independent study includes individualized study under close supervision of a faculty sponsor.

Prerequisite: permission of advisor.

Physical Education

Developing Health Education Materials in the Schools

PHED 7001 1 cr.

The purpose of this workshop is to acquaint school personnel with materials and resources available for the development of health education programs. Health topics include nutrition, personal hygiene, bicycle safety, drugs, smoking, alcohol, cancer, heart disease, physical therapy, podiatry, physical fitness and certification in basic cardiopulmonary resuscitation. These topics are discussed by several guest speakers representing national and local health organizations.

Political Science

Selected Seminars in the Not-for-Profit Organizations

POLS 7000 1 cr.

Selected seminars examine trends, current research and contemporary issues in the not-for-profit organization. Seminars vary from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest. Topics include Public Funding, Social Security, Facilities, Contract Law, Grant Writing, Program Development, Board Development, Fundraising, Museum Management, Management of Change, History of the Public Good, American Culture and the Rugged Individual and Information Technology systems.

Globalization and the American City

POLS 9001 3 cr.

This course will examine globalization through the lens of the American city. The challenges, opportunities, issues and decisions facing public officials, policymakers, non-profit organizations, and individual citizens will be presented, debated, and discussed.

Leadership Strategies for Civic Organizations

POLS 9002 3cr.

This course will provide an overview of essential skills and competencies needed for effective leadership in both public and nonprofit civic organizations. Through course readings, case studies, class and online discussions, presentations, and written assignments, students will better understand the complexity and challenges facing leaders in public and nonprofit organizations, or "civic organizations",in providing public services. A special focus of this course will be an introduction to the policymaking process and the relationship between research, policy, program implementation, and program evaluation.

Institute for Understanding Government Decision Making

POLS 9003 3cr.

The Institute for Understanding Government Decision Making focuses on understanding the inner working and political dynamics of government decision making that affects us locally, regionally, nationally, and globally. Invited elected officials, senior-level policymakers, strategic researchers, business leaders, and nongovernmental organization directors are integrated into the daily exploration and application of cutting edge case studies and simulation crisis scenario exercises.

Professional Development

Effective Instructional Processes: Theory to Practice

PDEV 9000 6 cr.

Participants study current research on transdisciplinary, multi-cultural curricula that incorporate tactics for teaching critical thinking in the curricula. Practical application in the classroom is facilitated through the study and practice of cooperative learning strategies and peer coaching techniques. Through its design, implementation and evaluation, this course models and examines effective practices for adult learners.

Staff Development Programs: Design, Management, and Evaluation

PDEV 9200 6 cr.

Students study the varied purposes and potential outcomes of staff development and in-service programs offered to teachers in a public school setting. The steps involved in needs assessment, program design, adult instructional methodologies, program monitoring and evaluation procedures are studied and practiced. Each student, functioning as a member of a team, designs a 12 week staff development course to implement in the parent school system. The staff development courses offered by the graduate students carry system assigned, in-service credits and are related to the goals and objectives of the parent school system. Participants enrolled in these staff development courses are fellow teachers in the school system.

Research Seminar in Education

PDEV 9300 3 cr.

The purpose of this course is to give students working knowledge of educational research. The content areas covered include the nature of social science research, methods, procedures, related statistics, interpretation of research and research plans. Students learn through a variety of methods, including selected readings, written homework, assignments, class lectures, presentations and discussions, and research.

Seminar and Internship in Staff Development

PDEV 9400 6 cr.

During this final academic/application phase, the graduate students implement a professional development program for teachers and support staff in their school system. The intern assesses the needs of the staff, consults with peers and colleagues about the design of a professional development program, designs and implements the program and evaluates its effectiveness. In addition to the internship, the students participate in seminars, which take place on-location throughout the semester program.

Graduate Thesis

PDEV 9500 3 cr.

Students must meet the requirements of the Graduate Division's Thesis Program. In order to complete this phase of the program, a faculty committee is established by the student under the guidance and supervision of the graduate advisor.

Psychology

Professional Practice, Standards and Ethics: School Counseling
PSY 7000 3 cr.
The philosophy, structure and dynamics of schools and the school systems will be explored. The roles of various school personnel, especially school counselors, in providing and coordinating services to children, will be studied. Consulting services to children will be emphasized. Legal and ethical issues involved in the practice of Counseling in schools will be examined.
Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development.

Professional Practice, Standards and Ethics: Mental Health and Family Counseling
PSY 7005 3 cr.
This course addresses the professional orientation, including the history of mental health counseling and marriage and family and family counseling within the context of health and human services systems, mental health public policy and legislation; consumer needs assessment and advocacy and the role of professional associations. Professional standards of training, practice and licensure are covered. The legal and ethical issues that affect the professional practice of counseling, such as reporting, confidentiality, duty to warn and ethical standards are explored. Professional practice issues such as malpractice, dual-relationships, client rights and professional responsibilities are examined.
Prerequisite: PSY 1100, PSY 2350, and a course in psychology of development.

Counseling Theories
PSY 7010 3 cr.
Participants in this course examine the major paradigms and theoretical approaches to counseling, including Organic-Medical, Psychoanalytic, Person-Centered, Behavioral, Rational-Emotive/Cognitive and Systemic/Family. In addition to increasing participants' understanding of the therapeutic process, the course focuses on increasing self-awareness of personal characteristics that may influence professional effectiveness. Students submit a personal statement paper.
Note: Performance in this course is part of the pre-candidacy screening process for matriculation into the Graduate Program in Counseling.
Prerequisite: PSY 1100.

Group Dynamics
PSY 7020 3 cr.
This course explores the cognitive, affective and behavioral processes within the context of groups. Part one of the course is experientially based and requires students to participate in an actual group process. Part two provides an analysis of group dynamics, including an examination of the experiential component. Course emphasis is on the experiential and theoretical bases of group dynamics with the development of participant intra- and interpersonal awareness.
Note: Performance in this course is part of the pre-candidacy screening process for matriculation into the graduate program in counseling.
Prerequisite: PSY 1100.

Issues in Development: Counseling Children and Adolescents
PSY 8010 3 cr.
This course equips students with a strong background in developmental events of childhood and adolescence in order to enhance their understanding of a young client's point of view. Students are asked to relate developmental issues to the kinds of problems children and adolescents present to the counselor. Theories of personality are reviewed, and students are required to apply concepts from theory to case material.
Prerequisites: PSY 1100 and a course in psychology of development.

Issues in Development: Counseling Adults
PSY 8020 3 cr.
The course emphasizes adult development and counseling issues of adult life, especially as they relate to an individual's developmental progress. Students consider clients in light of their developmental history, which influences present behavior. The instruction presumes that helping clients gain greater understanding of these influences aids them in their efforts to solve problems and become more satisfied in their daily lives.
Prerequisites: PSY 1100 and a course in psychology of development

Life Span Development
PSY 8030 3 cr.
This course examines human physical, cognitive, personality and social cultural development from conception to death. Emphasis is upon the understanding of the theories of human development across the life span, the understanding of empirical research associated with these theories, the enhancement of critical thinking skills and the application of understanding to current issues in development.
Prerequisites: PSY 1100 and a course in psychology of development

Issues in the Psychology of Death and Dying
PSY 8040 3 cr.
This course explores theories, research, and literature related to death, grief and loss. The student is encouraged to examine personal reactions to these dynamics, to relate them to ongoing development and to apply them to the counseling relationship.
Prerequisite: PSY 1100.

Theories of Personality: Applications to Counseling
PSY 8050 3 cr.
This course surveys the major theories of personality. Emphasis is placed upon the student's ability to integrate the study of personality within the context of normal developmental issues and psychopathology.
Prerequisite: PSY 1100.

Psychology of Women: Counseling Implications
PSY 8060 3 cr.
This course examines how being female impacts the behavior and perception of women. A variety of topics are covered, including development of identity, hormonal determinants of behavior, sex differences in personality, women's roles in societies and woman as a counseling client.
Prerequisite: PSY 1100.

Divorce: Process and Issues
PSY 8090 3 cr.
This course is designed for students interested in increasing their understanding of marital separation and divorce. Students review the effects of this action on children and parents as well as the changes divorce imposes on personal, interpersonal and societal levels. The various stages each family member goes through coupled with developmental issues are discussed. Strategies for helping families grow through the experience are demonstrated, using individual and family therapy techniques as well as support group dynamics. Remarriage and the blended family are addressed, and current research in the area is reviewed.
Prerequisite: PSY 1100.

Childhood Trauma and Its Impact on School Based Services
PSY 8100 3 cr.
This course explores the principles and practices of etiology, diagnosis (diagnostic and statistical manual criteria, etc.), treatment and prevention of emotional and dysfunctional behaviors (physical abuse and neglect, sexual abuse, substance abuse, sexuality issues, AIDS, mental illnesses and violence) and the legal and ethical dilemmas faced by educators in schools today. The course is designed to teach the educator to respond to children and families in crisis, provide referrals, work as part of an interdisciplinary team and take a proactive stance against child abuse and related problems.
Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development

Sexual Abuse of Children and Adolescents

PSY 8120 3 cr.

This course emphasizes the diagnosis and humanistic treatment of the victim and the perpetrator, as well as significant others in the sexual abuse of children and adolescents. The psychodynamics of each role are discussed with an exploration of a variety of treatment modes. Case studies and speakers are used to enhance students' learning. Affective as well as cognitive approaches are used. This course is geared toward the practitioner and potential practitioner or teacher. Prior completion of a course in child abuse and neglect, experience in protective services or exposure to abuse/neglect situations is helpful.

Prerequisite: PSY 1100.

Psychopathology I: Diagnosis and Assessment

PSY 8130 3 cr.

This course explores major categories of emotional and behavioral disturbance utilizing the DSM-IV diagnostic classification system. Case vignettes are used to provide students with practice in differential diagnosis using the DSM-IV. The course reviews the following for each category of psychopathology: essential features, associated features, diagnostic criteria and multiaxial classification. Clinical interviewing and assessment is addressed, as well as legal and ethical issues related to assessment and diagnosis. Note: A field based experience (25 hours minimum) is required for this course.

Prerequisites: PSY 1100, PSY 2350, a course in psychology of development, and admission to the MS Counseling Program

Psychopathology II: Treatment Planning and Outcome

PSY 8132 3 cr.

This course is an advanced graduate counseling psychology course, which assumes familiarity with patterns of emotional and behavioral disturbances and competency in utilizing the DSM-IV to determine differential diagnosis. In addition to discussing psychopathology and diagnosis, this course focuses on differential treatment planning and outcome effectiveness. Treatment planning examines various interventions, including psychopharmacology and modalities of categories of psychopathology. Students explore the role of the multidisciplinary team and the need for consultation and/or referral. Treatment termination indication is also covered.

Prerequisite: PSY 8130.

Psychopharmacology for Counselors

PSY 8135 3 cr.

This course teaches counselors, residential specialists and teachers how to collaborate with physicians to maximize the benefits of psychiatric medications for their clients. Students review the genetic and biological factors that shape personality and psychopathology. Particular emphasis is placed upon the use of psychiatric medications in the treatment of anxiety disorders, attention deficit disorder, sexual dysfunction, substance abuse, episodic rage, sleep disturbances, Tourette's syndrome, mood disorders, and schizophrenia. Other biological therapies are discussed, including the use of artificial sunlight for winter depression.

Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development or permission of instructor.

Alcohol Abuse and Other Addictive Disorders

PSY 8140 3 cr.

The course is a survey of the use and abuse of alcohol and other commonly used psychoactive drugs. An understanding of the basic principles of pharmacology is reviewed along with the psychosocial correlates of substance abuse and other addictive disorders. The course provides a functional analytic framework for assessing addictive behaviors. Participants visit various substance abuse programs such as Alcoholics Anonymous, Narcotics Anonymous, AL -non, and an area detoxification program.

Prerequisites: PSY 1100, PSY 2350.

Impact of Alcohol Abuse and Other Addictive Disorders on Family Systems

PSY 8143 3 cr.

This course focuses on the effects of alcohol abuse and other addictive disorders on the entire family system, including children of alcoholics. Systems theory as applied to families are reviewed. The effects of trans-generational patterns of alcohol abuse and other addictive disorders on family members (including the roles that are adopted) are examined. Self help programs, for example, Alcoholics Anonymous, Al-Anon, Narcotics Anonymous, Adult Children of Alcoholics and Overeaters Anonymous are explored.

Prerequisite: PSY 8140. (offered every two years)

Family Treatment with Abusive/Neglectful Families

PSY 8170 3 cr.

This course helps the student recognize the necessity of treating the entire family in abuse cases and develops skills in family therapy as it applies to abusive families. It is recommended that the student have completed a basic family therapy course. Note: A field based experience (25 hr. minimum) is required for this course.

Prerequisites: PSY 8100, PSY 8150, PSY 8160 and permission of department. (offered every two years)

Criminal Psychopathology

PSY 8172 3 cr.

This course reviews the psychodynamics, as well as familial and ecological dynamics, of situational offenders, recidivist offenders and sociopathic offenders. Students explore the interface between traditional notions of mental health, criminal behavior and addiction theory. Students develop an understanding of the psychological impact of criminal behavior on the offender's family, the victim, the community and the criminal justice system.

Prerequisites: PSY 1100, PSY 2350, SOC 1100, HMSV 1100 or permission of instructor.

Systems, Laws, and Issues in Forensic Case Work

PSY 8174 3 cr.

This course examines the philosophies and social/legal mandates governing the criminal justice, mental health and social service systems as they affect criminal offenders. The challenges confronting the professionals in these systems are explored in relation to their legal options to service and manage behavior. Topics such as dangerousness, domestic violence and involuntary treatment are considered. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite: PSY 8172 and admission to the MS in Counseling Program. (offered every two years)

Treatment Issues and Interventions in Forensic Case Work

PSY 8175 3 cr.

This course reviews traditional and innovative therapeutic techniques and institutional considerations for treating offenders in outpatient, inpatient and correctional settings. Students explore strategies for dealing with resistant clients, and they learn how to develop collaborative relationships with probation and parole officers. Discussions focus on legal, therapeutic and systems issues in counseling victims, family members of offenders and criminal justice professionals. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite: PSY 8172 and admission to the MS in Counseling Program. (offered every two years)

Mental Status Examination

PSY 8176 1 cr.

This course helps students to develop a working knowledge of the technical language and content of reports from hospitals, schools, and court records. Students learn to evaluate a patient's current mood and thought processes and to judge their tendency towards suicide and public danger. The administering of a brief screening for possible neurological and physical problems is discussed. To benefit professionals outside the field of mental health, students master the translation of psychological jargon into understandable reports.

Prerequisite: PSY 2350 or PSY 8172.

Social and Cultural Foundations: Issues in Counseling
PSY 8190 3 cr.

This course covers the multicultural and pluralistic trends as well as the characteristics and concerns of diverse groups. The attitude and behaviors based on such factors as age, gender, race, religious belief, physical disability, sexual orientation, ethnicity, language, culture, family pattern, socio-economic status and intellectual ability are explored in the context of client population and a student's own background. Individual family and group counseling strategies for working with these diverse populations are examined while taking into consideration ethical issues.

Prerequisite: PSY 1100.

Principles of Guidance and Counseling
PSY 8200 3 cr.

This course addresses the roles, activities and problems of school counselors. Counselor relations with parents, students, teachers, administrators, and with other professionals in the pupil services field are examined. Techniques for effectively reaching and serving target populations in a school setting are explored.

Prerequisite: PSY 1100 and admission to the MS in Counseling Program.

Psychology of Learning: Theory and Applications
PSY 8205 3 cr.

This course explores the study of the human learning process with emphasis on learning theories, concepts, principles, applications and implications. Among the topics addressed are information processing, attention, perception, metacognition, thinking, memory, forgetting, transfer, concept learning, principle learning, learning disorders, study skills, expository techniques, classical conditioning, operant conditioning, social learning and motivation.

Prerequisites: PSY 1100.

Occupational Information and Career Counseling
PSY 8210 3 cr.

This course presents an overview of the nature of work in the technological society. Emphasis is placed on career development theories, vocational interest and educational admissions tests, and sources of occupational and educational information. Students learn about career counseling techniques and placement services in high schools, colleges and adult career service agencies. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite: PSY 1100 and admission to the MS in Counseling Program.

Lifestyles and Career Development
PSY 8215 3 cr.

The purpose of this course is to familiarize students with work force issues and how they impact lifestyles and career development. It includes the examination of the global economy, technological changes, demographic shifts, ethics and changes in the labor market. The interrelationships among work, family, and other life roles as well as the effects of diverse cultures, genders and special populations are examined for their impact on career counseling and career development. Students are exposed to career decision making models; career counseling competencies; career development theory; corresponding assessment tools; and career, vocational and educational information resources and systems. Students also learn to facilitate the career development process over the lifespan.

Prerequisite: PSY 1100.

Counseling in the Elementary School
PSY 8220 3 cr.

This course provides applications of counseling strategies as they relate to the development levels exhibited by elementary school students. Emphasis is placed on counseling methods and referral skills appropriate to working in school settings, with professional colleagues and parents. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite: PSY 1100 and admission to the MS in Counseling Program.

Working with Individuals with Special Needs
PSY 8230 3 cr.

The needs, levels of functioning and contributions of individuals with special needs are examined in this course. Educational issues and strategies for understanding and working with individuals with learning disabilities, physical disabilities, social emotional issues, medical needs, and mental disabilities are explored.

Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development.

Intervention Methods for School Adjustment Counselors
PSY 8240 3 cr.

This course focuses on the implementation of effective strategies for working with children, families, schools, agencies and communities. Building upon a theoretical and conceptual framework, the techniques of consultation, crisis-intervention, conflict resolution, inter-school/agency/community collaboration and referrals are examined and applied. Didactic approaches, including case studies, role playing and case presentations, are utilized.

Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development.

Psychological Testing and Assessment: Theory and Practice
PSY 8300 3 cr.

This course is designed to give students a broad understanding of the theory and use of psychological testing and assessment. Methods of test evaluation, analysis and interpretation, including psychometric statistics, standardization, correlation, validity, reliability, standard errors, and types of assessment scores are presented. Students examine standardized testing instruments used to measure human cognitive and affective factors, as well as environmental, performance, behavioral and computer-assisted assessments. Age, gender, ethnicity, language, disability, cultural factors and ethical considerations related to assessments and evaluation are explored. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite: PSY 1100, PSY 2120 or PSY 5530 and admission to the MS in Counseling Program.

Psychological Testing and Assessment: Individual Measurement of Intelligence
PSY 8310 3 cr.

This course covers the history, development and organization of the Wechsler and Stanford-Binet tests of intelligence. Considerable time and emphasis are placed on the administration and scoring of these tests and on the interpretation and reporting of results. A certificate is awarded upon successful completion of the course. Testing materials must be purchased during the course. Field experience is required.

Prerequisites: PSY 1100, PSY 2120 or PSY 5530, PSY 8300 and admission to the MS in Counseling Program.

Psychological Testing and Assessment: Projective Techniques
PSY 8320 3 cr.

This course covers techniques of measuring human personality through human figure drawings, informal projective sentence completion tests and apperception testing. Students develop skills in administering these techniques and integrate findings into psychological reports.

Prerequisites: PSY 1100, PSY 2120 or PSY5530, PSY 8300.

Clinical Observation and Assessment of Children and Adolescents
PSY 8330 3 cr.

The emphasis of this course is on developing a conceptual framework for simultaneously observing multiple dimensions of child and adolescent functioning, then translating these observations into clinical inferences to derive clinical hypotheses and treatment recommendations from these inferences. This is an advanced course necessitating familiarity with abnormal behavior and diagnosis.

Prerequisites: PSY 1100, PSY 2350, and a course in psychology of development. (offered every two years)

Counseling Techniques and Case Analysis: Individuals and Families

PSY 8500 6 cr.

This course investigates the variety of counselor skills necessary in a helping relationship to move a client from an initial interview through the processes of information gathering, assessing, goal setting, and intervention (both individually and family system oriented) to establishing an effective termination. Students practice basic and active listening skills, such as paraphrasing, clarification, probing, and confrontation. They analyze and interpret client information and problem solve. Students also learn to develop an ecosystemic map of the client system, which includes a family or origin genogram and map of the relevant contextual levels impinging on the client system. Further, the course addresses such topics as crisis intervention, individual and group intervention strategies, couple and family assessment and interventions and case conference techniques. Note: a field based experience (25 hr. minimum) is required for this course.

Prerequisite for all students admission to the MS in Counseling Program
Prerequisite for school guidance students: PSY 7000, PSY 7010, PSY 7020, PSY 8010, PSY 8200, PSY 8210 or PSY 8220, PSY 8300 and candidacy.
Prerequisite for mental health counseling students: PSY 7005, PSY 7010, PSY 7020, PSY 8030 or PSY 8010 and PSY 8020, PSY 8130, and PSY 8132. PSY 8300 and candidacy.

Psychotherapeutic Techniques, Treatment and Modalities

PSY 8615 3 cr.

This advanced course addresses, in depth, two or more dominant approaches to counseling, which may include: Rational Emotive/ Cognitive, Insight-Oriented/ Interpersonal, Behavioral/Reality.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, and PSY 7020. Students should check the semester's Course Bulletin to learn which approaches are included. (offered every two years)

Crisis Intervention for Counselors

PSY 8625 3 cr.

This course examines a number of sophisticated and challenging obstacles counselors face in evaluating and working with individuals who are in crisis. Counselors are prepared to perform effective mental health assessments, develop appropriate emergency intervention treatment strategies and develop appropriate discharge planning for crisis involved individuals. Topics covered include emergency psychiatric evaluations, mental status examinations, crisis intervention techniques, legal issues, managed care systems and discharge planning. Role playing situations and written assignments are utilized.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, and PSY 7020. (offered every two years)

Group Work and Leadership in Mental Health Counseling

PSY 8700 3 cr.

This course examines utilizing group as a modality of intervention in working with adults and children. Theories and approaches to group work including support groups, psycho-educational groups and therapy groups are covered. The course focuses on group leadership, group process and stages of group development and group membership issues. Practical considerations in planning a group, screening and selections of group members, leading and/or co-leading a group, dealing with problems encountered in group work and methods of evaluation of group effectiveness are examined.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, PSY 7020, or permission of instructor.

Group Work and Leadership in School Counseling

PSY 8705 3 cr.

This course examines the theories and models of group counseling, with an emphasis on group leadership skills, utilized by school counselors. The course examines utilization groups as a modality of intervention in working with the school age population.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, PSY 7020, or permission of instructor.

Family and Systems: Models and Interventions

PSY 8710 3 cr.

This course focuses on family dynamics, personal and systematic change in the therapeutic relationship and treatment/ intervention for various clinical issues related to children and families. Consideration is also given to theoretical models of development and psychopathology with regard to treatment planning, referrals and consultation. Experiences are offered to learn appropriate professional and ethical strategies of family intervention.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, PSY 7020, or permission of Instructor.

Helping Parents Help Their Children

PSY 8730 3 cr.

This course provides strategies and skills for workers who offer guidance, counseling and/or therapy to parents of children or adolescents. Parenting issues such as enhancing self-esteem, developing and accepting responsibility, adjusting to families in transition, dealing with issues related to divorce, blending families, disciplining, sharing quality time and becoming meaningfully involved in a child's education are explored.

Prerequisites: PSY 1100, PSY 2350, PSY 7010, PSY 7020, or permission of Instructor.

Family Models: Organization, and Process I

PSY 8750 3 cr.

Through an integration of experiential and cognitive learning approaches, this intensive process seminar builds a thorough and systematic understanding of the dynamics of family systems. The theoretical frameworks include those of Kantor-Constantine, structural and systematic family therapy. This course emphasizes developmental processes in families, especially individuation in relation to family organization and style. It is organized as a weekly process seminar supplemented by all day workshops.

Prerequisites: PSY 1100, PSY 2350 and PSY 7005, or PSY 8710, or PSY 8740, or permission of department.

Independent Study

PSY 8910 1 cr.
PSY 8920 3 cr.
PSY 8930 6 cr.

The content of these courses is designed by a student with the guidance of a faculty member to provide in-depth exposure to a topic for which no regular course is available. A plan of study must be submitted to the Behavioral Sciences Committee on Graduate Programs and the Dean of Graduate and Continuing Education during the semester preceding the term of the proposed course. Independent study is available by permission of the instructor only.

Prerequisites: PSY 1100 and as determined by instructor.

Research and Program Evaluation

PSY 8950 3 cr.

This course provides students with an overview of the design and methodology of social research and program evaluation as applied to mental health counseling and education. Topics of study include critical analyzing and evaluating of research literature, experimental research design, survey research, program evaluation, treatment strategies evaluation, needs assessments, participant observational research and ethics in research evaluation. Students learn how to plan, conduct and document a research and/or evaluation study in a field setting.

Prerequisites: PSY 1100, PSY 2120 or PSY 5530.

Topics in Counseling

PSY 8971 1 cr.
PSY 8972 3 cr.
PSY 8973 6 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest.

Prerequisite: PSY 1100 and as determined by instructor.

Internship in Counseling

PSY 9062 3 cr.

Students are placed in agencies for supervised contact with clients. Each student maintains a case load, participates in the operation of their agency, and meets regularly with their on-site supervisor to discuss case planning and counseling techniques. Students meet at the university for group supervision and conferences and to present one of their client cases in detail. The faculty supervisor visits each internship site during the semester to confer with students and their on-site supervisors. The internship requires a minimum of 150 hours of on-site experience. Note: Students must consult with the Field Placement Coordinator one semester in advance of their expected placements to begin arrangements.

Prerequisites: candidacy and PSY 8500.

Internship in Forensic Case Work

PSY 9065 3 cr.

This capstone experience allows the student to develop their skills in a forensic setting under the supervision of a forensic worker who has worked in the field off forensic case work for a minimum of two years and has earned at least a master's degree. Seminar classes meet on campus bi-weekly. The internship requires a minimum of 150 hours of on-site experience. Note: Students must consult with the Field Placement Coordinator one semester in advance of their expected placements to begin arrangements.

Prerequisites: PSY 8100 or PSY 8120, PSY 8140, PSY 8172, PSY 8174, PSY 8175, and PSY 8176.

Internship in Counseling

PSY 9075 6 cr.

Students are placed in agencies for supervised contact with clients. Each student maintains a case load, participates in the operation of their agency, and meets regularly with their on-site supervisor to discuss case planning and counseling techniques. Students meet at the university for group supervision and conferences, and to present one of their client cases in detail. The faculty supervisor visits each internship site during the semester to confer with students and their on-site supervisors. The internship requires a minimum of 300 hours of on-site field experience. Note: Students must consult with the Field Placement Coordinator one semester in advance of their expected placements to begin arrangements.

Prerequisites: candidacy and PSY 8500, or PSY 8755 (for Adolescent and Family Therapy Certificate).

Practicum in School Counseling

PSY 9085 fall 6 cr./spring 6 cr.

The practicum is an intensive two semester experience in an actual counseling setting. Students are placed in elementary or secondary school guidance offices, depending on the student's desired certification level (PreK-8 or 5-12). Each student maintains a regular case load (some short term, some long term), participates in regular guidance activities such as core evaluations, articulation with other schools, scheduling and meets weekly with their on-site supervisor. Students meet at the university with their university supervisor in a seminar setting (six meetings in the fall, six in the spring). During these meetings students present cases and discuss issues as they arise in the internship. The faculty supervisor visits each practicum site (once in the fall, twice in the spring) to confer with students and their on-site supervisors. The practicum requires a minimum of 600 hours of on-site field experience. Note: Students must consult with the Field Placement Coordinator one semester in advance of their expected placements to begin arrangements.`

Prerequisites: candidacy, all required courses in Phase II of the school guidance counseling course of study and successful completion of the Communications and Literacy Test.

Internship in Mental Health Counseling

PSY 9090 fall 6 cr./spring 6 cr.

The Internship is an intensive two semester experience in an actual counseling setting. Students are placed in agencies for supervised contact with clients. Each student maintains a case load, participates in the operation of the agency, and meets regularly with their on-site supervisor to discuss case planning and counseling techniques. Students meet at the University with their university supervisor in a seminar setting (six meetings in the fall, six meetings in the spring) and for other group supervision activities and conferences. During these meetings students present cases, (one client case in detail) participate in other seminar activities and discuss issues as they arise in internship. The faculty supervisor visits each internship site (once in the fall, twice in the spring) and confer with students and their on-site supervisors. The internship requires a minimum of 600 hours of on-site field experience. Note: Students must consult with the Field Placement Coordinator one semester in advance of their expected placements to begin arrangements.

Prerequisites: candidacy and PSY 8500.

Graduate Thesis

PSY 9093 6 cr.

At the end of a student's formal academic study in the CAGS in Interdisciplinary Studies (Psychology/Counseling) Program, students submit a Thesis research or study proposal to the Behavioral Sciences Committee on Graduate Programs. With committee approval, the student works under the supervision of a faculty member on this activity. The Thesis is a supervised, systematic research or analytical study of a significant problem/issue involving the areas of psychology and counseling, which results in an original, written product. Students are challenged to think independently and critically throughout the process of developing the research or study. The written product must reflect an organized effort with an appropriate and useful format through which to discuss a comprehensive review of the literature, problem identified, assumptions, significance of study, sources and methods of gathering and analyzing information, and conclusions/recommendations.

Reading Specialist

Understanding the Structure of the English Language

READ 7016 3 cr.

This course examines the inherent linguistic structure of Modern English and applies this knowledge to classroom instruction. The course begins by comparing previous historical knowledge about the nature of language with today's current theoretical issues. Next, candidates describe Modern English in terms of its linguistic structure, the sound system, English spelling, morphology, the semantic system and work formation, grammar, and sentence structure.

Psychology of Reading, Reading Development and Disabilities

READ 7017 3 cr.

This course is designed to provide students with an understanding of the reading process and its developmental progression. Students will examine reading models, review research related to reading psychology and identify characteristics of proficient and non-proficient readers.

Specialized Reading Approaches

READ 8017 3 cr.

This course is designed to give students a comprehensive instruction based overview of the various reading approaches. Students will utilize research to analyze the components and effectiveness of these programs.

Reading Disabilities and the Assessment of Reading

READ 8018 3 cr.

This course addresses historical and contemporary theories regarding reading disabilities. This course focuses on assessment practices where students administer, score and interpret the results of screening and diagnostic reading instruments and informal reading inventories. Students develop recommendations for direct instruction and teach children with severe reading disabilities. Candidates work with teachers and support personnel or staff development. Field experience required.

The Assessment of Writing Skills and Writing Disabilities

READ 8019 3 cr.

In this course students will analyze the components of written language and factors affecting performance. Cognitive factors associated with written language are addressed. Students assess writing skills and plan approaches to writing instruction. Candidates work with teachers and support personnel on staff development.

Content Area Reading and Writing: Fostering Literacy in Middle School and High School

READ 8132 3 cr.

This course meets the requirement that all teachers at the middle and secondary levels be able to use and teach the skills of reading and writing in their disciplines. This course includes an investigation of the reading and writing processes within content disciplines: an examination of the relationships among reading, writing, critical thinking, and learning; discussion of current evaluative methods, including portfolio; an analysis of reading and writing strategies and procedures for developing student capacity for using reading and writing to think critically and to learn and understand content. Credit cannot be given for both EDUC 8132 and EDUC 7014. This is part of the professional licensure track, middle school.

Explicitly Teaching Comprehension Skills in the Classroom

READ 8200 3 cr.

Content will include an overview of current reading comprehension research and implications for instruction. The course will emphasize learning as an active, constructive process and promote using a variety of learning strategies to enhance understanding.

Literacy Assessment that Informs Instruction

READ 8303 3 cr.

The purpose of this course is to provide training in several areas of Curriculum-Based Measurement (CBM) including Oral Reading Fluency (R-CBM), DIBELS (Dynamic Indicators or Basic Literacy Skills) and Curriculum Based Evaluations (CBE) designed to assess literacy achievement. This course provides professionals the necessary knowledge and skill to use these assessments to (a) identify academic skill deficits of individual students, (b) develop academic goals and intervention plans, and (c) monitor and evaluate student progress toward academic goals. Also candidates are introduced to the use of Curriculum-Based Assessment within school wide Reading Improvement and Response to Intervention Models.

Prerequisite: An initial teaching license.

The Reading Specialist: Leadership Roles

READ 9012 3 cr.

This course is designed to develop the skills needed for the Reading Specialist to work directly with teachers and support personnel to contribute to their professional development. It addresses the knowledge in leadership and in reading needed to provide teachers paraprofessionals and others with the support necessary to learn pedagogical content knowledge, curriculum development, research based instruction, assessment practices and strategies to become effective liaisons with parents and school personnel.

Research in Reading Education

READ 9100 3 cr.

This course focuses on past and current research in reading, written language and spelling and in disabilities associated with each area. Theories, research and implications for reading instruction are addressed. Appropriate instruction based on research is determined. Students read studies that test all theories against on another at different points in time. Students develop an understanding of longitudinal studies, sampling procedures, research bias evaluating competing theories. Students report implications for teaching. Prerequisite: Research in Education

Practicum (Reading Specialist)

READ 9101 3 cr.

This course provides graduate candidates with an opportunity to demonstrate skills they are learning in the graduate program in reading as well as demonstrating competencies required for an initial license as a Reading Specialist. The experience is designed to be a supportive one, with practicum supervisors providing candidates with the guidance needed to enhance their development as reading specialists. Portfolio completion based on IRA and State standards.

Practicum Seminar

READ 9104 3cr.

Candidates complete a portfolio demonstrating competence in instruction, assessment and leadership in the areas of reading and writing. Candidates complete two case studies and a staff development project. Taken concurrently with READ 9101: Practicum: Reading Specialist.

Science Education

Independent Study

SCED 8001 1-6 cr.

The independent study gives the student an opportunity for independent development of teaching techniques, laboratory procedures, written work, science curriculum, job-related document or of some other activity agreed upon by the student and the graduate faculty advisor. The final product of this study is a written or otherwise permanent documentation of the work accomplished.

Internship

SCED 8002 1-6 cr.

The internship provides laboratory or field experience in conjunction with established research programs at cooperating off-campus governmental, industrial, or private institutions. Supervision is shared by the institutional program directors and faculty from Fitchburg State University. A comprehensive paper describing the internship activities is required upon completion of the experience.

Practicum in Science

SCED 8003 1-6 cr.

The practicum provides student teaching experience in area schools and in the university campus school, designed to meet the state requirements for teacher certification.

Advanced Methods in Teaching Science

SCED 9000 3 cr.

The emphasis of the course is upon developing a working philosophy of science teaching for the master teacher. The course focuses on the design of activities to foster scientific inquiry, ethical decision-making, and critical thinking as well as research on alternative assessment, classroom management and the use of technology in the science classroom.

The Modern Science Curriculum

SCED 9001 3 cr.

The course provides an up-to-date survey of the science teaching curriculum materials available for use in schools, K-12. Each student develops a model science curriculum based on psychological and pedagogical principles.

Research in Science Education

SCED 9002 3 cr.

Students undertake research designed to explore some phase of science teaching in detail. This study may include teaching methodology, curriculum development and/or other activities agreed upon by the student and supervising research advisor. An element of experimentation must be included in the project. The final product is a written documentation of the research and results.

Science, Ethics, and Technology

SCED 9003 3 cr.

The purpose of this course is to communicate the process of ethical reasoning. Students gain a better understanding of how cooperation between people concerned with the human application of science and the makers of public policy must become a working hypothesis. By examining current literature students uncover some of the facts and general principles of ethical reasoning and relate the short- and long-term consequences to moral positions.

Research in Science

SCED 9004 3 cr.

Students undertake research in a specific field of science that involves an in-depth exploration of a well defined problem. The student must develop a hypothesis for the possible solution of the problem, then devise the experimental technique to test the hypothesis and ultimately conceive a logical conclusion based upon the data collected. The final product is a written documentation of the research and results. The study is completed under the supervision of graduate faculty.

Thesis

SCED 9010 6 cr.

Students conduct a research project resulting in a thesis. The thesis develops under the guidance of a thesis advisor and committee.

Special Topics

SCED 9100 3 cr.

Course content varies from semester to semester, reflecting contemporary issues in the discipline and depending upon student and faculty interest. Note: Many other science courses are offered from time to time. Some are cross-listed under biology, earth science and chemistry. See specific course-listings for each semester for details. Other courses from biology, earth science or chemistry may be used as electives or requirements.

Secondary Education

Introduction to Strategies for Effective Teaching in the Academic Discipline

SEED 7015 3 cr.

This initial-level graduate course focuses on relating the curriculum frameworks in a discipline to the design of meaningful activities which require the application of critical thinking skills in engaging classroom instruction and student assignments. A broad range of contemporary issues facing teachers will be studied. Students will become familiar with differentiated and interdisciplinary instruction. In addition to using a basic textbook, the Internet will be a major source of content for the design of secondary-level student activities.

Advanced Methods of Teaching at the Secondary Level

SEED 8000 3 cr.

The course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications, and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs and interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: The Modern Secondary School or initial teacher licensure

Practicum

SEED 8090 6 cr.

Student teaching experience is offered to give practical classroom experience to those students who have not satisfied the state requirements for licensure.

Research in the Secondary Education Classroom

SEED 8150 3 cr.

Students develop knowledge, understanding and skill in the action research process, enabling them to make data driven decisions using quantitative and qualitative educational research procedures. Students develop an action research project to address current issues affecting schools and students. Field-based experience in mandatory.

Curriculum and Technology

SEED 8250 3 cr.

This course looks at the integration of educational technology in the classroom and its relationship to learning theories and curriculum, specifically, the Massachusetts Curriculum Frameworks. This course explores the use of the Internet as a classroom resource to strengthen curriculum. Various Internet related topics are covered, such as acceptable use policies and copyright issues. .

Curriculum Design & Development

SEED 8260 3 cr.

This course is designed to provide students with knowledge and skills of the curriculum development-revision process. The course examines societal demands on the curriculum and the role of the American school in a democratic and multicultural society as students assess, revise, and implement instructional programs and the curriculum in a systematic and logical way. Active participation in school-based curriculum teams, IEP teams, site-based management teams and community groups teach effective delivery of services to all students and school improvement/reform efforts. In collaborative groups students review, revise, and expand the curriculum and assessment procedures in order to integrate current research findings and education reform initiatives.

Independent Study

SEED 9000 3 cr.

Independent study provides special individualized study under close supervision for students excelling in scholarship.

Master's Thesis

SEED 9100 3 cr.

Students conduct research which will result in a thesis. The thesis is developed under the supervision of an advisor. This capstone experience allows full integration and application of content knowledge and pedagogical theory and practice. The study is completed during the duration of the course. Requires the signature of both the advisor and the graduate program chair.

Internship

SEED 9500 6 cr.

The internship is a capstone experience allowing full integration and application of content knowledge and the pedagogical theory and practice. Within the individual's classroom it incorporates all standards specific to the discipline in which certification is sought as well as all common standards for classroom teachers (section 7.04 DOE Professional Standards). A minimum of 400 clock hours or one full semester on-site under the auspices of the university is fulfilled. A research project is completed during the duration of the internship.

Special Education

Early Intervention
SPED 6600 3 cr.

This course focuses on assessing and working with children at risk for special needs or identified as having special needs. Current issues and concerns about infant stimulation and the role of parents and agencies in providing services are addressed.

Sign Language and Deafness
SPED 6700 3 cr.

In this class students acquire a basic sign language vocabulary (SL) as used by the majority of deaf adults, including structure, grammatical principles and vocabulary development. Issues in deaf education as well as deaf cultures and the needs of deaf individuals in the school and community are studied.

Working with Individuals with Disabilities
SPED 7004 3 cr.

Course content covers the characteristics and needs of children and adults with disabilities along with the educational terminology for students with mild to moderate disabilities. The total special education service delivery system is examined to include federal and state regulation, the IEP process and services provided by other agencies such as DMR and DMH. The course is intended for regular educators, students beginning in special education and, it provides an update for experienced special educators and administrators.

Understanding the Structure of the English Language
SPED 7016 3 cr.

Examines the inherent linguistic structure of Modern English and apply this knowledge to classroom instruction. The course begins by comparing previous historical knowledge about the nature of language with today's current theoretical issues. Next, we will particularly describe Modern English in terms of its linguistic structure, the sound system, English spelling, morphology, the semantic system and work formation, grammar and sentence structure.

Psychology of Reading, Reading Development and Disabilities
SPED 7017 3 cr.

This course is designed to provide students with an understanding of the reading process and its developmental progression. Students will examine reading models, review research related to reading psychology and identify characteristics of proficient and non-proficient readers.

Children and Adults with Disabilities: A High Incidence Population for Abuse, Neglect and Victimization
SPED 7018 1 cr.

An examination of how special needs children are high incidence population for abuse, neglect, and victimization. The class is exposed to topics such as: the child abuse reporting statute/responsibilities of DSS, care and protection orders/juvenile court process, the criminal justice system's response to child victims and their needs, how school systems can respond to victimization of children and initiatives to promote violence prevention programs in communities/schools. The course involves both lecture and group discussion formats with an emphasis on case scenarios/problem solving.

Students with Attention Deficit Hyperactivity Disorder
SPED 7019 1 cr.

This course delves into the many topics surrounding the study of ADHD: history, theory and brain research, diagnosis, symptoms, medical treatments, behavioral modifications and classroom suggestions. Students have the opportunity to develop individual classroom manuals which detail ADHD accommodations across multi-leveled curriculum settings.

Modifying and Adapting Curriculum
SPED 7020 3 cr.

In this course students develop skills in observation techniques, learning style assessment, classroom organization and lesson planning. This course is a prerequisite course for the initial licensure master's degree and is required for students who wish to enter the clinical program but do not have teacher certification. Students complete a 10 hour pre-practicum (field-based) experience as part of the course.

Homeless and in Need of Special Education
SPED 7021 1 cr.

The course provides an overview of the nature and impact of homelessness: enrollment and attendance policies effective curriculum, instruction and management and the development of educational and social service interventions designed to assist families and children who are homeless to meet with success in the school and community setting. An on-site shelter visit further enhances student learning relative to this pervasive, societal issue.

Pedagogy in Reading/Language Arts
SPED 7025 3 cr.

In this course students demonstrate an understanding of the curriculum areas of reading and language arts. A 10 hour pre-practicum (field-based) experience is required. This course is a prerequisite for the master's degree. It is required for students who wish to enter the initial licensure program but do not have teacher certification, and for students with secondary certification only.

Implementing Classroom and School-Wide Effective Behavior Support for All Students
SPED 7033 1 cr.

This course provides an overview of the research and best practices for assessing, planning, and implementing classroom and school-wide positive behavior support. We will look at patterns of problem behavior and examine it through a systems approach and explore ways to design and implement school-wide supports. User friendly materials and handouts will be shared. Problem-solving strategies will be discussed with the understanding that each school has its own unique characteristics and there is no one size fits all approach.

Positive Behavior Support at the Individual Level: Demystifying the Process
SPED 7044 1 cr.

Participants will examine alternative strategies for conducting an effective Functional Behavioral Assessment (FBA) and using the results to design an individual Behavior Support Plan.

Students with Disabilities: Issues in Assessment and Education of Bilingual and Non English Speaking Students
SPED 7110 3 cr.

The purpose of this course is to provide both regular and special education teachers with the background information necessary to skillfully handle the referral and assessment process and work collaboratively with others in providing optimal service for the target population. Participants will explore their own experiences and belief systems to see how these impact their professional behavior.

Technology in Special Education
SPED 7250 3 cr.

This course provides an overview of the application of hardware and software in special education. The role of computers for diagnostic, instructional and administrative purposes in special education settings is examined. Students evaluate existing hardware, software and peripherals in terms of their applicability for individuals with special needs. Students utilize tool software (word processing, data base) and commercial software to develop and increase their computer skills.

Working with Families that Include Children with Disabilities
SPED 7300 3 cr.

This course defines and discusses issues of families with one or more children with special needs. The focus is on the effects a child with disabilities has on the family system and on the roles of individuals in the family. Strategies for working effectively with families are emphasized.

Emotional Disturbances: Theory and Practice

SPED 7400 3 cr.

This course is designed to examine the major theoretical frameworks that conceptualize and explain emotional disturbance. Students utilize these conceptual frameworks to focus on identification, assessment, and the development of effective treatment approaches for children.

Advanced Strategies for Teaching School-Age Children with Emotional and Behavioral Problems

SPED 7410 3 cr.

This course builds upon theoretical perspectives of SPED 7400. Students explore their own responses to conflict and stress and identify and practice strategies suited for teaching troubled children and youth. In addition, students examine issues pertinent to the education of this population.

Inclusion of Students with Disabilities in Regular Education

SPED 7650 3 cr.

Students will analyze barriers to inclusion and develop effective strategies for integration of individuals with disabilities into all aspects of the community including home, school and work setting. Students will define and redefine their role as professionals as it relates to their philosophy of integration.

The High School Environment—Challenges In Educating Students with Disabilities

SPED 7709 3 cr.

The high school environment is undergoing dramatic change shaped by social, political, technological, methodological and philosophical issues and controversies. Students will analyze the external forces pressing for redesign of administrative structure, delivery of education, the learning environment and how those changes impact students with special needs. Research-based methods for teaching to a wider range of abilities, and models for curriculum modification and staffing reallocations will be discussed.

Physical and Medical Aspects of Working with Students with Disabilities

SPED 7950 3 cr.

The course provides an overview of the basic neurological and physiological systems of the body while exploring typical and atypical development. Disabilities common in infants, children and adolescents (such as, seizures, cerebral palsy) are examined with a focus on educational adaptations and accommodations. Various models of service provision are contrasted. Collaborative strategies for working with students with physical disabilities and health impairments are developed.

Working with Children with Autism Spectrum Disorders in the Inclusive Classroom

SPED 8008 2 cr.

This course provides teachers and teacher candidates with the knowledge and methods to educate children with autism spectrum disorders in the inclusive classroom. Related educational theories and interventions will be examined through a historical context, assessment approaches, developmental risk factors, and instructional interventions for multiple settings. Supportive technology and other evidence-based approaches to assist students with communication and behavior intervention will be explored to support students in becoming active participants in their classroom.

Differentiating Content Instruction in Inclusive Classrooms

SPED 8011 3 cr.

This course delineates instructional and managerial strategies that can be used in classrooms to address the individual learning needs, strengths and styles of all students. Emphasis will be placed on best practices that maximize student learning within the regular classroom. The most current and promising practices, as well as relevant research, will be presented. Other areas of specific study will include special education, second language learning, brain research, gifted and talented, learning styles, technology and rubric design. The varied learning environments, content, processes and product for the course will strive to reflect the best practices in differentiated instruction.

Behavior Analysis and Intervention in Applied Settings

SPED 8014 3 cr.

This course will prepare students to function as behavior analysts and consultants within the community, school and home environments. Students will learn to identify socially significant behaviors to target for change, operationally define these behaviors, conduct descriptive assessments, develop hypotheses based on the results of their assessments to conduct functional analyses, interpret the results of the functional analyses to develop effective and ethical treatments and evaluate implemented treatments in terms of efficacy and consumer approval/acceptance/adherence based on the data. Students will learn to identify barriers to effective behavioral analysis and intervention within applied settings (e.g., resistance), and methods to overcome these barriers, such as conducting functional and ecological assessments of caregiver behavior and potential motivating operations for resistance. In addition, students will learn how to conduct a needs assessment to determine areas for caregiver training and support and develop a support system/training program based on the results of the assessment. Throughout the content of this course, attention will be given to methods to improve consultant/consulatee relationships to foster adherence to behavioral interventions and support systems.

Fundamentals in Applied Behavior Analysis

SPED 8015 3 cr.

The basic frameworks and theory of applied behavior analysis (ABA) will be examined including the definition and characteristics of ABA. The history and foundation of applied behavior analysis will be reviewed. Students will learn to identify the differences in behaviorism, the experimentation of behavior and applied behavior analysis. Important definitions, terms and concepts will be identified and reviewed. Seminal research articles from field of applied behavior analysis will be used to emphasize the relationship between behavior analysis and the education of children. General principles will be covered targeting areas of clinical intervention and educational intervention.

Curriculum Strategies in Reading/Language Arts

SPED 8016 3 cr.

This course addresses direct instructional procedures for phonemic awareness, letter-sound correspondences, systematic and explicit phonics, fluency, vocabulary, language and comprehension skills. The design and modification of curriculum instructional materials and general education classroom environments for students with moderate disabilities will be explored. This course provides detailed information on how to systematically and explicitly teach essential reading skills based on research. The reading and writing process and specific modifications for children with special needs will be covered. In addition the cognitive, physical, cultural, social, and emotional needs of students will be analyzed in order to develop an appropriate comprehensive and student-centered reading approach for each child. The preparation, implementation, and evaluation of Individualized Education Programs (IEP's) will be developed. Candidates will write lesson plans using the Fitchburg State College format. The findings of the National Reading Panel as well as summaries of other research will be discussed.

Specialized Reading Approaches
SPED 8017 3 cr.

This course is designed to give students a comprehensive instruction based overview of the various reading approaches. Students will utilize research to analyze the components and effectiveness of these programs.

Reading Disabilities and the Assessment of Reading
SPED 8018 3 cr.

This course addresses historical and contemporary theories regarding reading disabilities. This course focuses on assessment practices where students administer, score and interpret the results of screening and diagnostic reading instruments and informal reading inventories. Students develop recommendations for direct instruction and teach children with a variety of reading needs.

The Assessment of Writing Skills and Writing Disabilities
SPED 8019 3 cr.

In this course students will analyze the components of written language and factors affecting performance. Cognitive factors associated with written language are addressed. Students assess writing skills and plan approaches to writing instruction.

Behavior Analysis and Support for Students with Severe Disabilities
SPED 8020 3 cr.

Theoretical frameworks for analyzing behaviors are examined with a focus on a positive behavior supports. Students operationalize descriptions of behaviors, collect and analyze data, and work collaboratively to develop and implement a behavior support plan.

Curriculum Frameworks and Alternate Assessment
SPED 8021 3 cr.

The focus of this course is on curriculum and adaptations for teaching students with severe disabilities in the general education classroom, and ensuring access to the general curriculum for all students. Students will work with Massachusetts Curriculum Frameworks and MCAS Alternate Assessment Resource Guide.

Augmentative and Alternative Communication
SPED 8022 3 cr.

Students will examine communication options for individuals who are unable to meet their daily communication needs through speech. Emphasis will be places on conceptual and technical aspects of augmentative and alternative communication as well as intervention strategies and procedures used by teachers when supporting and expanding the individual's ability to communicate.

Supports and Services from Birth Through Adulthood
SPED 8023 3 cr.

The purpose of this course is to look beyond the educational setting to examine the range of services and supports which individuals with severe disabilities and their families need to live full and independent lives. A strong focus will be on working collaboratively with families. Particular attention will be given to the process of transition in general, and transition from school to adult life in particular.

Program Development in the Functional Domains
SPED 8024 3 cr.

Focusing on four domain areas-community, domestic, recreation/leisure, and vocational-a systematic approach for assessment and instructional strategies are examined and implemented. The establishment of programs and the modification of curricula in inclusive settings will be addressed throughout the course.

Alternate Assessment in the Content Areas
SPED 8025 3 cr.

State and federal law require that all students have access to the general education curriculum. The focus of this class will be on standard-based instruction (using the Massachusetts Curriculum Frameworks, MCAS Alternate Assessment). Curriculum areas to be addressed are primarily those in the cognitive domain: English language, arts, mathematics, science and technology/engineering, and social sciences. Students will work through the process of designing and preparing MCAS Alternate Assessment Portfolio entries.

Integrating Behavior, Communications and Sensory Strategies to Meet the Needs of Those with Disabilities
SPED 8030 3 cr.

This course will integrate behavior, communication and sensory strategies with various behavioral, neurological and psychiatric characteristics and the range of behavioral manifestations. The students will conduct a Functional Behavior Assessment (FBA) and develop a functionally equivalent behavior intervention plan for a target behavior within one of the disability areas.

Ethical Issues and Collaboration
SPED 8175 3 cr.

This course is designed to connect the ethical and professional standards of the profession of applied behavior analysis with its implementation. Candidates will learn to use questions such as, What is the right thing to do? What is worthy doing? What does it mean to be a good behavior analyst? to guide their personal and professional practices. Candidates will study theory and practice skills related to communication skills and processes as well as effective consultation strategies for working with families, school personnel and other professional. Candidates will learn how to evaluate their consultation skills and maintain themselves as consultant and collaborators.

Positive Behavioral Supports for Students with Disabilities
SPED 8180 3 cr.

This course provides an overview of the research and best practices for assessing, planning, and implementing individual, classroom and school-wide positive behavior support. Students will examine evidence-based strategies for conducting an effective Functional Behavioral Assessment (FBA) and use the results to design and implement an individual Behavior Support Plan. Students will also become more proficient in designing data collection sheets and collecting and graphing data. Systematic procedures for influencing behavior will be reviewed. Teacher candidates will look at patterns of problem behavior and examine it through a systems approach and explore ways to design and implement classroom and school-wide supports to prepare and maintain students with disabilities for the general education classrooms. Federal and state legislation and regulations are examined with particular attention to their impact on the design and implementation of educational programs for students with behavior challenges.

Explicitly Teaching Comprehension Skills in the Classroom
SPED 8200 3 cr.

Content will include an overview of current reading comprehension research and implications for instruction. The course will emphasize learning as an active, constructive process and promote using a variety of learning strategies to enhance understanding.

Language Development, Differences and Disorders
SPED 8300 3 cr.

This course addresses normal development of expressive and receptive language in terms of phonology, morphology, syntax, semantics and pragmatics. It focuses on the language performance exhibited by different populations of children/adults with disabilities. The language of bilingual/bicultural children and language-disordered adolescents are addressed. Students develop an understanding of the principles and practices related to assessment and intervention for children with language disorders. Students assess language needs and plan appropriate strategies. Field experience (25 hours) required for testing and program planning.

Literacy Assessment that Informs Instruction
SPED 8303 3 cr.

The purpose of this course is to provide training in several areas of Curriculum-Based Measurement (CBM) including Oral Reading Fluency (R-CBM), DIBELS (Dynamic Indicators or Basic Literacy Skills) and Curriculum Based Evaluations (CBE) designed to assess literacy achievement. This course provides professionals the necessary knowledge and skill to use these assessments to (a) identify academic skill deficits of individual students, (b) develop academic goals and intervention plans, and (c) monitor and evaluate student progress toward academic goals. Also candidates are introduced to the use of Curriculum-Based Assessment within school wide Reading Improvement and Response to Intervention Models. Prerequisite: An initial teaching license.

Assistive Technology in the Classroom

SPED 8350 3 cr.

This course will examine the application of assistive technology tools to aid in the classroom. The focus will be on addressing reading and writing skill as well as curriculum adaptation. Participants will use a variety of software programs and consider the application of these tools with their students. The course is a survey of issues involved in the application of technology to meet the needs of students with disabilities.

Practicum (Severe Disabilities)

SPED 8861 6 cr.
SPED 8863 3 cr.

This course is the student teaching experience for students in the first year of the clinical program who do not have a prior certificate or license. Through a 150 hour field based experience, students are provided an opportunity to develop skills and demonstrate competency in the area of certification they are seeking. This course is one of the requirements for initial licensure.

Clinical Experience (Severe Disabilities)

SPED 8862 6 cr.

This course provides students in the second year of the clinical program with an opportunity to demonstrate skills they are learning in the clinical coursework as well as demonstrating competencies required for professional licensure. The experience is designed to be a supportive one, with clinical supervisors providing students with guidance and support needed to enhance their development as teachers.

Early Intervention Practicum

SPED 8900 6 cr.

This 150 hour field based experience provides students with a supervised opportunity to develop skills and demonstrate competencies necessary in early intervention settings. The practicum is designed to be a supportive experience, with supervisors providing the guidance and support needed to enhance students' development as early intervention specialists.

Assessment, Curriculum, Strategies in Reading Language Arts

SPED 8914 6 cr.

This course focuses on understanding the processes for developing reading and language arts skills with students who have special needs. Alternative and traditional assessment strategies are addressed and applied to students with moderate disabilities in the clinical experience. Adaptation strategies, including the use of educational technology for teaching language arts and social studies are addressed. Concepts of measurement are studied to enable students to establish criteria for selecting appropriate assessment tools. Students evaluate assessment devices for technical quality.

Assessment, Curriculum, Strategies for Math (focus on PreK-8)

SPED 8915 3 cr.

This course will focus on assessment, curriculum and strategies for teaching mathematics to students with special needs. It will address basic concepts and issues in developing and modifying mathematics curriculum while analyzing current research-based strategies and approaches to instruction. Candidates will utilize information from formal and informal assessments to plan instruction and write components of an IEP. Students will explore and become aware of different service delivery models and strategies for meeting the challenges of creating inclusive classrooms that address educational needs for all learners. The curriculum presented will be based on The Massachusetts Department of Education Frameworks in the content area of mathematics.

Assessment, Curriculum, Strategies for Math (focus on 5-12)

SPED 8916 3 cr.

This course will focus on basic concepts and issues in developing and modifying curriculum in mathematics while analyzing current research based approaches to instruction specific for students in grades 5-12. It will address integration of these content areas. Students will explore and become aware of software available for use in education and actually try out software in the content area of mathematics. Students will learn a variety of techniques, service deliveries and strategies for meeting the challenges of creating instruction for inclusive classrooms in mathematics that address the educational needs of all students. The Massachusetts Department of Education Frameworks in Math will be handed out and reviewed.

Assessment/Strategies: Reading and Language Arts

SPED 8917 3 cr.

This course prepares candidates to employ the processes and terminology utilized in assessment. Assessment in the academic areas of reading, written and oral language and listening will be explored. Graduate students will evaluate students with disabilities (or suspected disabilities) in these academic areas using formal assessment tools, background information and observations. Information gathered will be synthesized and interpreted to select appropriate strategies and plan effective academic programs in the language arts domain. Candidates will develop components of the students IEP that pertain to reading and language arts.

Pre-requisite: SPED 8016

Reading and Writing: Methods for Secondary Students with Moderate Disabilities

SPED 8918 3 cr.

This course addresses the components of reading plus written language and spelling and difficulties associated with each area as they impact adolescent students with reading/learning disabilities in the secondary curriculum. The course focuses on the literacy requirements in content area learning (common text structures, vocabulary, comprehension, summarizing, and study skills) and direct instructional procedures. It also addresses document literacy, technological literacy and quantitative literacy. Further, the course explains the reading/writing connection and the processes that impact on the understanding and production of written text. Written expression is explored at the sentence and text level and also addressed are the constraints that can impact an adolescent with learning disabilities the ability to connect ideas to written text. Interventions, which combine the process writing theory with an emphasis on text structure and cognitive writing strategies, are analyzed.

Pre-requisite: SPED 8016

Assessment, Curriculum and Strategies for Math/Science, Social Studies and Cognitive Assessment

SPED 8924 6 cr.

Students learn current approaches for teaching math, science and social studies as well as appropriate strategies for modifying instruction when necessary. The standards of the National Council for the Teaching of Mathematics (NCTM) and the Massachusetts Curriculum Frameworks are presented. Specific computer programs are studied to demonstrate the integration of computers into units of study. Students with special needs are evaluated using formal and informal assessment tools, background information and observation.

Assessment Practices in the Content Areas

SPED 8950 3 cr.

This course examines the use of formal and informal assessment devices as well as criterion referenced and non-referenced techniques. Students use various assessment strategies as they observe, analyze and interpret children's learning needs. Varied test instruments are reviewed and current issues in assessment are researched and discussed.

Practicum (Moderate Disabilities)

SPED 8961 6 cr.
SPED 8963 3 cr.

This course is the student teaching experience for students who do not have a prior certificate or license. Through a supervised field based experience students are provided an opportunity to develop skills and demonstrate competency in the area of certification they are seeking. This course is one of the requirements for initial licensure.

Clinical Experience (Moderate Disabilities)

SPED 8962 6 cr.

This course provides students with an opportunity to demonstrate skills they are learning in the clinical coursework as well as demonstrating competencies required for professional licensure. The experience is designed to be a supportive one, with clinical supervisors providing students with guidance and support needed to enhance their development as teachers.

Research in Special Education

SPED 9000 3 cr.

This course is designed to introduce teachers and educators to the basic research designs and methods used in special education. Students will learn to critically analyze the research literature and will write critiques of current articles in the field. Students will also be required to conceptualize a study based on their interests and propose procedures for implementing it (please note that students will NOT be required to collect or analyze data!). The goal of the course is to help educators use empirical studies presented in the literature to improve their practice and to participate in research and evaluation projects in their professional settings.

Research Application Seminar

SPED 9002 1 cr.

This seminar provides a mixture of group planning, support and guided individual study for students in special education who are enrolled in their practicum and ready to work on a specific research project. Students will develop a study design, work in small groups to apply principles of research design and implement a research project in the practicum setting.

Must be taken concurrently with SPED 8862 or SPED 8962.

Reflective Teaching

SPED 9003 3 cr.

Professional educators must be reflective practitioners. National Board for Professional Teaching Standards (NBPTS) materials will be used to structure this highly interactive and individualized course designed for teachers who want to reflect on, and further enhance, their teaching practices.

Practicum and Research Application Seminar

SPED 9004 3 cr.

This seminar serves as a culminating course for Special Education candidates enrolled in their practica experiences. Within the context of the FSC Education Unit Conceptual Framework, candidates use Massachusetts initial teaching license competencies and Council for Exceptional Children (CEC) standards to reflect on and improve their teaching practices. Candidates complete a targeted literature review to ensure that they are using evidence based practices. Candidates also use the Renaissance Partnership for Improving Teaching Quality-Teacher Work Sample prompts and resources to design and implement an instructional unit (or approved alternative project) to demonstrate impact on student learning. Knowledge of curriculum and effective instructional strategies are integrated with knowledge of formative and summative assessment and the results are reflected on by candidates as they develop a professional development plan.

The Adult Learner

SPED 9010 3 cr.

The course focuses on the nature of the developing adult as a learner. An understanding of how the adult learner processes experience, how learning is best structured and how to provide feedback is emphasized. An extension of this focus includes an investigation of human relations and gender uniqueness, as well as relations within diverse populations as they impact the personal competence of the adult learner. Journals and readings are the basis for guided reflection and introspection.

The Reading Specialist: Leadership Roles

SPED 9012 3 cr.

This course is designed to develop the skills needed for the reading specialist to work directly with teachers to contribute to their professional development. It addresses the knowledge in leadership and in reading needed to provide teachers with the support necessary to learn pedagogical content knowledge, curriculum development, research based instruction, assessment practices and strategies to become effective liaisons with parents and school personnel.

Research in Reading Education

SPED 9100 3 cr.

This course focuses on past and current research in reading, written language and spelling and in disabilities associated with each area. Theories, research and implications for reading instruction are addressed. Appropriate instruction based on research is determined. Students read studies that test all theories against one another at different points in time. Students develop an understanding of longitudinal studies, sampling procedures, research bias and evaluating competing theories. Student report implications for teaching. Prerequisite: Research in Education

Practicum (Reading Specialist)

SPED 9101 6 cr.

This course provides graduate candidates with an opportunity to demonstrate skills they are learning in the graduate program in reading, as well as demonstrating competencies required for an initial license as a Reading Specialist. The experience is designed to be a supportive one, with practicum supervisors providing interns with guidance and support needed to enhance their development as a reading specialist.

Practicum Seminar

SPED 9104 3 cr.

Candidates complete a portfolio demonstrating competence in instruction, assessment and leadership in the areas of reading and writing. Candidates complete two case studies and a staff development project. Taken concurrent with SPED 9101: Practicum Reading Specialist.

Special Education and the Law

SPED 9120 3 cr.

Students will review policy and program regulations associated with Massachusetts Chapter 766, IDEA, Section 504 of the Rehabilitation Act, and Americans with Disabilities Act, as they apply to implementation of services in school-based settings. Precedent setting court decisions associated with those laws will also be examined. New legislation affecting educational practices in general, and therefore, affecting special education practices, will be explored. Students will have the opportunity to explore case studies and challenge their own ability to think critically about various situations.

Advanced Identification and Remediation of Reading/ Language Based Learning Disabilities

SPED 9130 3 cr.

The identification of reading disabilities will be examined and various approaches to remediation of reading disabilities will be presented. Instructional and managerial strategies to differentiate reading and language based disabilities will be studied. Emphasis will be placed on exploring and designing Individualized Educational Programs based on specific student needs to plan effective instruction. Current trends in reading and their effect on students with disabilities will be discussed. Students will develop further communication and collaboration skills with peers, parents and other professionals, including those from various reading programs. In addition, the cognitive, physical, cultural, social, and emotional needs of students will be analyzed in order to develop an appropriate, comprehensive, and student-centered reading approach for each individual child.

Prerequisite: SPED 8016

Woodcock/Johnson—III
SPED 9150 3 cr.

This course focuses on the WJIII. Students will demonstrate knowledge of theories of intellectual processing and skill in administering, scoring and interpreting the cognitive and achievement batteries of the WJIII. An understanding of the early childhood, elementary or secondary school curriculum is necessary. Previous preparation in educational assessment and basic knowledge of statistical terminology related to norm-referenced testing are prerequisites. Student profiles will be analyzed. A field-based component is required. Kits need to be obtained from the students' school systems.

Consultation and Collaboration Strategies
SPED 9200 3 cr.

Students study theory and practice skills related to communication skills and processes as well as effective consultation and collaboration strategies for working with school personnel, human service agencies and key special education stakeholders. Theory is grounded in the interpersonal issues arising from a variety of school teams (grade level, IEP, Eligibility, departmental, transition planning). The course focuses on emerging issues related to student assistance, inclusion, peer to peer consultation, IEP design/elements, IEP implementation and monitoring and transition planning/post-secondary requirements in light of differing agendas of key stakeholders including parents, district, building, grade level, and departments. The process of differentiating between collaboration situations and consultation options is practiced. Students learn how to evaluate their consultation skills, target collaboration opportunities and maintain themselves as consultants/collaborators in a variety of school, community and agency situations.

Educational Strategies
SPED 9250 6 cr.

Given the context of the adult learner and the process of implementing educational change studied in the previous courses in the CAGS sequence, the focus of this course is on effective and promising strategies which improve teaching and, thereby, learning for all children. Students become proficient at critiquing the design, analysis and results of research to determine which strategies hold promise for improving teaching. Students also study current effective strategies in the field, such as cooperative learning, social interaction, peer mediation, teaching/learning styles, cross cultural competency, apprenticeship models, reciprocal teaching and project approach. Lastly, students learn how to implement these strategies in their schools.

Internship and Reflective Analysis Seminar
SPED 9350 6 cr.

This internship is designed to advance the development of self-directing educators who initiate, facilitate, participate in, and evaluate all aspects of educational practice. The internship is a year-long experience which offers interns an opportunity to practice communication skills and apply collaborative skills with one or more colleagues in the field. The experience includes opportunities to plan, organize and evaluate ways of improving instruction through the cooperative participation of school personnel and to implement educational change through such peer leadership structures and practices as mentoring, collaborative supervision, peer coaching and team teaching. All work is carried out under the supervision of faculty. Ongoing internship projects are analyzed during biweekly seminars.

The Reflective Analysis Seminar serves as the capstone course for the CAGS Program in Teacher Leadership: A Program for Teachers. Opportunities are provided which allow students to analyze their course work and their internship through an integrated and reflective process. Each session is accompanied by discussion formats with other students, by reading, and research. Students are encouraged to present ideas on the role of instructional leadership and its purpose in improving instruction. The instructor's role in the course is that of a facilitator.

Current Issues in Special Education
SPED 9400 3 cr.

Students consider the context for special education and examine current and controversial issues such as inclusion, cost-effectiveness, educational reform and grading. The course format gives students the opportunity to examine and debate these issues from multiple perspectives. Particular attention is given to the ways in which current issues and controversies affect classroom teachers and their students.

Independent Study
SPED 9500 3 cr.

Students who wish to pursue an area of interest in special education that is not offered through course work may develop a program of study with a member of the graduate faculty. Faculty use a conference approach with the individual students, which places emphasis on critical thinking and sensitivity to the process of resolving issues.

Prerequisite: with permission of advisor only.

Administration of Special Education Programs
SPED 9800 3 cr.

In this course emphasis is given to services, organization programs, personnel and facilities as they relate to the needs of the child and adult with special needs. Students are expected to be well-versed in the effects of federal and state mandates for special education services as a result of this course.

Topics in Special Education
SPED 7XXX-9XXX 1-3 cr.

Course content varies from semester to semester, reflecting contemporary issues in special education and depending upon student and faculty interest.

Technology Education

Computers in Industrial Technology
ITEC 7010 3 cr.

This course familiarizes students with computers through presentation of selected hardware and software concepts. Opportunities for extensive hands-on practice with application programs are provided. CAD topics are also included.

Implementing Technology/Engineering Education in Public Schools
ITEC 7020 3 cr.

The course provides guidelines and experience in developing and implementing technology education course units in the area of communication, construction, manufacturing, power/energy, and transportation. Students experiment with and develop new units for classroom implementation.

Automated Drafting Systems
ITEC 7030 3 cr.

This course is designed to teach the general concepts related to automated drafting with a special emphasis on technical drawing. Specialized applications of industrial practices for drafting are emphasized in this course. One semester of technical or mechanical drafting is a prerequisite.

Advanced Methods of Teaching at the Secondary Level
ITEC 8000 3 cr.

This course combines academic study with clinical practice and supervision. Theories and topics studied and demonstrated include learning styles, critical thinking, computer applications and inclusive learning environments. Emphasis is placed on integrating culturally or linguistically diverse students and those with special needs. Interdisciplinary course development and implementation, student assessment including portfolio assessment and writing are studied for utilization across the curriculum.

Prerequisite: initial teacher licensure.

School to Career Components Seminar
ITEC/PDEV 8050 1 cr.

The seminar will provide current information and insight into the general structure of school to career programs, and the twenty required elements of a STC program. It will also introduce the relationship of STC with the SCANS competencies and tech. prep.

STWOA Federal Legislation and State Plan

ITEC/EDLM 8100 2 cr.

The course provides for the study, analysis and examples of the Federal School to Work Opportunities Act (STWOA) and the Massachusetts Plan for a comprehensive System of School to Work Transition regarding expectations of STC school programs.

School to Career in the Public School Curriculum

ITEC/EDUC 8250 3 cr.

The course provides the curriculum base for STC specialists to aid other teachers in the school to implement and include STC activities within their classes. The elements to be studied include the Massachusetts Common Core of Learning, the Massachusetts Framework Common Chapters, the six discipline chapters of the Massachusetts Curriculum Framework, and the Eight aspects of the industry identified in the STWOA. Emphasis is on how to integrate STC activities and concepts into the school curriculum.

Developing STC Industry/Business/Community Partnerships

ITEC/PDEV 8300 3 cr.

The course will study and examine the changing labor market and requirements, the Massachusetts Occupational Projections, and Occupational skill standards in relation to Goals 2000 and SCANs. With this background, strategies for creating and sustaining partnerships will be identified for work based and connecting activity components of STC.

Career Assessment , Mentoring, Portfolios and Coordination of work Based Learning Experiences

ITEC/PDEV 8350 3 cr.

The course identifies approaches and techniques used for student mentoring, job shadowing career interest assessment, and career portfolio development. The operation and responsibilities for work based learning experiences for students away from the school setting are examined.

Communications in Technology Education

ITEC 8400 3 cr.

The course provides exposure to the state framework area of communications using an integrated systems approach. The process of communication, approaches to technology in the laboratory, historical perspective, and social issues are addressed. Materials and programs for the middle and high school level are integrated throughout the course and application of concepts found in the public school technology lab is stressed. The course includes lab work.

Power/Energy in Technology Education

ITEC 8500 3 cr.

The course is organized around an energy system point of view. Various sources are covered, and for each source the technologies involved in the production, transmission, utilization and related environmental/social impacts are addressed. An effort to relate material for the public school lab/classroom according to the state organizational framework is integrated throughout the course. This course includes lab work.

Manufacturing in Technology Education

ITEC 8600 3 cr.

The course addresses the state framework area of manufacturing. The various systems of manufacturing used, the process involved in the production of goods and services and the support areas for the manufacturing enterprise are covered. The integration of manufacturing principles in the middle and high school lab environment is developed throughout the course. The course includes lab work.

Construction in Technology Education

ITEC 8700 3 cr.

The course develops outcomes related to the scientific principles, engineering concepts and technical approaches to the areas of residential, commercial and industrial construction as identified in the state organizational framework for technology education. The area of construction, the processes and materials used, the techniques performed and the planning and development of structures are studied and adapted for lab and classroom use in the public schools. The course includes lab work.

Transportation in Technology Education

ITEC 8800 3 cr.

The course emphasizes the importance of transportation and identifies the modes used for people and goods in various environments. The structure, support, propulsion, guidance, control and infrastructure systems for various forms of transportation are addressed. Materials adapted to the state framework for technology education for classroom and lab use are integrated throughout the course. The course includes lab work.

Curriculum Development for Technology/Engineering Education

ITEC 8900 3 cr.

The course is designed for those seeking professional licensure in technology education. Students learn to design courses and curriculum that include current trends in technology education. Several approaches for implementing problem solving, concept learning, habits of the mind, and integration of math/science concepts into the State framework areas of construction, communication, manufacturing, and power/energy in technology education are covered. The implementation of the state framework competencies for technology are addressed.

School to Career Clinical Internship

ITEC/EDLM 94003 cr.

The semester long internship provides the opportunity to develop and implement components of a school to career program in the public school setting. Emphasis will be placed on establishing new components into current programs.

Clinical Internship in Technology Education

ITEC 9500 6 cr.

The internship is a clinical, capstone experience allowing full integration and application of content knowledge and pedagogical theory and practice. Students complete a portfolio that demonstrates their professional growth and reflection on their teaching. A teacher work sample is required as part of the portfolio.

Center for Professional Studies/Extended Campus Program

The Center for Professional Studies and Extended Campus Programs offer both graduate and undergraduate courses to working professionals in schools, agencies and at work sites. Courses are developed in collaboration with the requesting agency or business and the appropriate academic department. These courses are usually 6000 level courses and carry the prefix of PDEV, PDMT or the prefix of the academic department, for example, EDUC or SPED. **No more than six semester hours of coursework at the 6000 level may be applied toward a master's degree program.** Because these courses are responsive to the needs of professionals in the field and are designed as requested, all courses offered are not listed here. The following list represents those courses regularly offered.

Phono-Graphix

PDEV 6012 1 cr.

This is a teacher-training course in reading decoding. Phono-Graphix is a rapid, innovative, research-based method which focuses on teaching phonological processing skills and using the sound symbol code to teach decoding to both beginning and remedial readers.

Teaching Smarter: Assessment Course

PDEV 6016 3 cr.

This course is designed for teachers who would like to teach smarter using current research strategies in assessment. It will focus on efficient and effective ways to provide students' feedback and to improve student performance. Both theoretical and practical aspects of assessments will be combined. Participants will have the opportunity to develop strategies to ensure student responsibility for learning.

Instructional Strategies and Practices in the Middle School

PDEV 6035 3 cr.

This course offers an in-depth look at a variety of instructional practices and strategies appropriate for effective teaching and learning of the early adolescent. Topics include building a sense of community, classroom management, differentiated instruction and alternative assessment. Attention will be given to addressing the needs of diverse student populations, including but not limited to children with different learning abilities, exceptional talent, different culture/ethnic background, or at-risk characteristics. Active and interactive learning strategies will be emphasized.

The Responsive Classroom: Elementary

PDEV 6078 3 cr.

The Responsive Classroom is an approach to classroom management and curriculum delivery developed by the Northeast Foundation for Children. This course will enable students to implement the social constructivist strategies taught in an elementary classroom and will increase their knowledge of child development and developmentally appropriate instructional practices.

Project Read—Phonology

PDEV 6094 1 cr.

Project read is a total language arts program for students who have difficulty learning to read and spell and whose teachers need to know more than one way to present the curriculum.

Differentiated Learning: Finding Successful Pathways for All Students

PDEV 6137 3 cr.

This course helps students understand the diverse needs of learners in their classroom and provides strategies and techniques to meet their various styles, readiness levels and interests.

The Craft of Teaching

PDEV 6185 3 cr.

This course is designed for educators who are interested in developing and refining their teaching skills. The course will provide practical training, support, resources and opportunities to develop useful classroom strategies and materials. Teachers will develop an awareness and understanding of their roles and responsibilities as educators. Opportunities to work with colleagues and develop a collegial and supportive network.

Orton-Gillingham: Advanced Seminar

PDEV 6309 2 cr.

This is the Advanced Orton-Gillingham course, which includes a supervised practicum of at least 190 hours.

Project Read: Reading Comprehension

PDEV 6339 1 cr.

Project Read is a mainstream language arts curriculum specifically designed for students having difficulty learning to read and write. Project read has three strands: phonology, reading comprehension and written expression.

Building Resiliency in Schools

PDEV 6469 3 cr.

This course will examine current models of resiliency, research related to the development of resiliency and its relationship to mental health. Emphasis will be given to the early childhood population (pre-kindergarten through third grade) and the role that educators play in fostering resiliency in children. Participants will examine risk factors that influence the social and emotional development of young children. Research on the individual characteristics and traits that serve as protective factors will be presented. Environmental supports, community services, and adult interventions that foster resiliency will be explored in depth. Specific strategies aimed at creating educational environments that nurture emotional strength and promote resiliency will be reviewed. Participants will be encouraged to evaluate current systems, services, and classroom practices in light of the research on resiliency and to develop an action plan for change.

School Law: A Practical Guide

PDEV 6475 3 cr.

This course will examine the unique and often confusing relationship between the law and public education. Special emphasis will be placed on the following: student rights and responsibilities under the law, teacher rights and responsibilities under the law, the impact of the education reform act on teachers and special education and the law.

Introduction to Fundamentals of Effective Vocational Technical Education

PDEV 6518 3 cr.

This course in vocational-technical education leadership introduces the new or aspiring vocational technical school middle manager to critical topics including the following: national trends in vocational-technical education, issues and obligation facing vocational-technical programs in Massachusetts, professional standards for vocational-technical school administrators, professional development planning, leadership styles and communication skills, school improvement planning, legal issues affecting school administrators, and understanding and influencing school culture. Presentations in conjunction with small and large group activities will be facilitated and lead by experience vocational-technical professionals and experts in specific areas of school management and leadership.

Project Read Reading Comprehension

PDEV 6618 2 cr.

The Project Read curriculum is divided into report form (expository text) and story form (narrative text) written information. The teaching approach is direct concept instruction using multisensory strategies and materials. If teachers the process of analyzing the underlying structure of expository and narrative writing and is presented in a sequential, dependent order of concepts and skills. This process transfers to other curriculum areas to give the students a level of language independence. The curriculum is designed primary for Grade 4 through adult learners, however it can be modified for primary students.

Black Yankees, New England's Hidden Roots: Intellectual Traditions and the Evolution of Community, 1750-1910

PDEV 6619 3 cr.

Using a variety of humanistic expression-speeches and writings of scholars and activists, slave narratives, poetry, fiction, music and fine arts- the content illumines the ways in which African-Americans, during the 17th-19th century New England influenced American expressions and traditions of freedom and democracy. This course covers themes such as the role of the black church, the strong but under-recognized influence of black women writers, activist and artist, economic life and work, the black abolitionist movement, and the pictorial representation of African Americans.

Four Ancient River Valley Civilizations

PDEV 6625 3 cr.

This course introduces teachers to the ancient societies of China, Egypt/Nubia, the Indus River Valley and Mesopotamia. In order to compare and contrast these ancient civilizations (both with each other and with modern civilizations), a thematic approach to teaching culture is utilized in the classroom. Archaeologists, historians and experienced teachers provide participants with scholarly material and hands-on opportunities to get their students engaged in thinking about life in ancient civilizations.

Leading the Learning: Supervision and Evaluation in a Standards Based Environment

PDEV 6631 3 cr.

This course is for superintendents, principals, curriculum directors and other administrators. The purpose of this course is to empower administrators to engage in their practice with a belief that they can make a difference in teacher practice and student learning through the supervision and evaluation process. The course explores an ever expanding repertoire of skills for supervising and evaluating staff in ways that promote professional growth and student learning, clearly articulated and communicated high expectations for educators and students and a commitment to engage in, model and promote collaborative practice.

Learning and the Brain, New Knowledge and Understanding

PDEV 6643 3 cr.

This course is designed for teachers, principals and administrators for the purpose of focusing on new knowledge and understanding of how the brain functions in order to improve schooling and learning.

Developing Mathematical Ideas: Making Meaning for Operations

PDEV 6657 2 cr.

This course is designed to help experienced K-6 teachers examine the actions and situations modeled by the four basic operations.

The Responsive Classroom: Middle School

PDEV 6667 3 cr.

The Responsive Classroom is an approach to classroom management and curriculum delivery developed by the Northeast Foundation for Children. This course is designed to provide middle school teachers with advanced knowledge in child development, social interaction and constructive theory, as well as direct and practical application of the theory to current classrooms.

Advanced Reading and Study Skills—Readak

PDEV 6703 3 cr.

Readak Educational Services has offered a specialized reading and study skills course for Grades 5-14 in private schools nationally and internationally since 1957.

Net Course Instructional Methodologies

PDEV 6730 6 cr.

In NIM, participants learn about the philosophy and pedagogy of net courses, fostering community-building and collaborative learning in an online course, facilitating an online dialogue to deepen the learning experience, using the Web as a resource for an online course, installing Lotus Notes and using learning space software to modify existing course and using LS to assess and evaluate students' progress in an online course.

Moving Out of the Middle at the Concord Consortium

PDEV 6734 3 cr.

Moving out of the middle is a 12-week net course that widens the set of online teaching strategies instructors bring to the role of moderating for learning.

Special Topics in Library Media Studies

PDEV 6743 3 cr.

This topics course has been designed for veteran library media specialists who want to update their skills and knowledge, begin to prepare for re-certification and accumulate salary schedule increment credits.

Finding Walden

PDEV 6745 3 cr.

This intensive nine-day interdisciplinary course will help middle school teachers address the need for students to gain a depth of understanding about and build a sense of respect for their home communities.

Linking the Curriculum with the Internet

PDEV 6755 3 cr.

This course is designed for classroom teachers, library media specialists, computer teachers and interested administrators. Instruction will be given on the use of internet browsers, search engines, e-mail and strategies for identifying sites to support current curriculum. Students will collect Web sites for classroom portfolios and develop Web-quests to publish their curriculum-related Web sites on the internet. Strategies will be discussed and developed to integrate these resources into classroom activities.

Accelerating Middle School Mathematics

PDEV 6773 3 cr.

This course's primary objective is to provide teachers with a solid foundation in the subject matter of middle school mathematics while at the same time incorporating activities appropriate for the inclusive classroom.

Instruction for All Students

PDEV 6914 3 cr.

The purpose of this course is to empower educators to engage in their practice with a sense of self-efficacy, a focus on clearly articulated standards and objectives, a repertoire of skills for teaching and assessing diverse learners, a passion for engaging all students in the learning process and a commitment to collaborate with colleagues and parents.

Developing Mathematical Ideas: Building a System of Tens

PDEV 6927 2 cr.

This is designed to help experienced K-6 teachers explore the structure of the base-10 number system and examine how children develop an understanding of it.

Thoreau's World and Ours

PDEV 6990 3 cr.

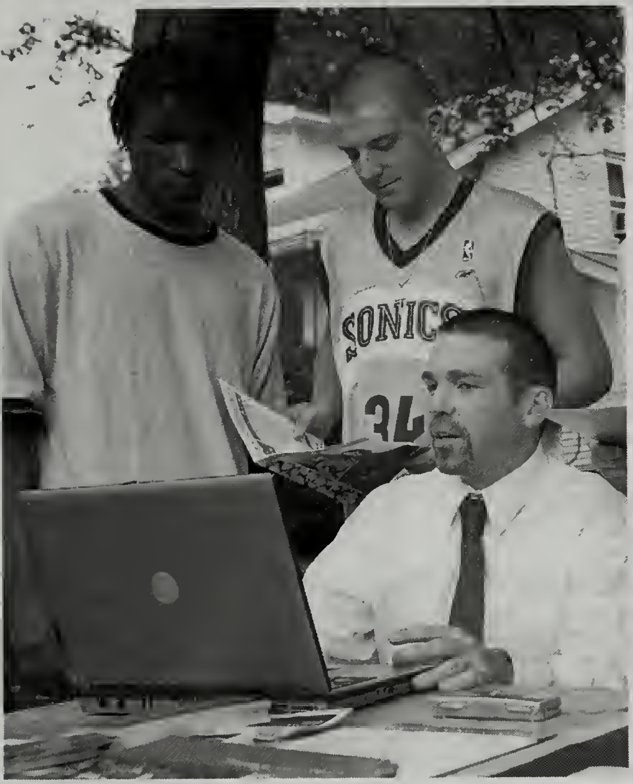
This two-week summer seminar offers high school English, history and science teachers a multidisciplinary study of ecological, environmental, literary and cultural histories of Concord. Studying the interconnections of Concord's varied histories provides participants with models for approaching inquiry-based studies of their home communities. The course is held at the new Thoreau Institute in Walden Woods.

Media Education and the Arts

PDEV 7070 3 cr.

The course will examine the various elements of art, television and film, and demonstrate techniques for integrating these elements into the curriculum in satisfaction of the need to develop thinking skills within each student.

FACULTY, TRUSTEES, ADMINISTRATION



Full Time Faculty and Librarians

★ **ALBERGHENE, Janice M.**
BA University of Massachusetts
PhD Brown University
Professor, English. 1988

★ **ALICATA, James**
BS University of Arizona
MPA Clark University
EdD University of Massachusetts
Chairperson and Associate Professor, Industrial Technology.
Graduate and Undergraduate Program Chair, Occupational/Vocational Education. 2002

★ **ANTAYA, David**
BS University of Massachusetts
MA University of No. Colorado
EdD University of Massachusetts
Professor, Exercise and Sport Science. 1981

ARCHAMBEAULT, Frank
BS Worcester Polytechnic Institute
MS Worcester Polytechnic Institute
MS Worcester State College
Associate Professor, Computer Science. 1986

ARMSTRONG, Cheryl
BA Boston College
MA University of Connecticut
PhD University of Connecticut
Associate Professor, Psychology. 1994

★ **AUSTIN, Kevin**
BS Polytechnic Institute of New York
MS Renselaer Polytechnic Institute
PhD Worcester Polytechnic Institute
Associate Professor, Computer Science. 2000

ARYEE, Augustine
BA Northeastern University
MA Northeastern University
PhD Boston University
Professor, Sociology. 1982

★ **BABICH, George**
AB Atlantic Union College
MS Loma Linda University
MS University of New Hampshire
PhD University of New Hampshire
Professor, Biology. 1978
On Sabbatical, Fall 2010

★ **BAKER, Laura E.**
BA University of California
MA University of Iowa
PhD University of Iowa
Associate Professor and Graduate Program Co-chair, History. 2004

BAKER, Mary
BS/BA Fitchburg State College
MFA Boston University
Assistant Professor, Communications/Media. 2007

BARBATO, Mary Ann
BA University of Rhode Island
MS University of Rhode Island
PhD University of Rhode Island
Chairperson, Associate Professor, Mathematics. 2001

BECHAR, Magda
BA University of Massachusetts
MS John Hopkins University
PhD University of Massachusetts
Associate Professor, Nursing. 2001

BENES, Deborah A.
BSN SUNY at Stony Brook
MSN SUNY at Stony Brook
Assistant Professor, Nursing. 2008

BERG, Jennifer D.
BA University of Montana
PhD University of California, Berkley
Assistant Professor, Mathematics. 2008

★ **BOERSMA, Rachel**
BSN Boston College
MS Fitchburg State College
PhD Boston College
Associate Professor and Graduate Program Chair, Nursing. 2000

★ **BOHRER, George F.**
BA SUNY at Fredonia
MAT Keene State College
PhD University of Massachusetts
Professor, Communications/Media. 1985

BOISVERT, Dorothy
BS Merrimack College
MEd University of Lowell
EdD University of Massachusetts, Lowell
Professor, Biology. 1983

BROCK, Deon
BS Central Missouri State University
MS Central Missouri State University
PhD Sam Houston State University
Associate Professor, Criminal Justice. 2006

BUDD, Eric
BA Brandeis University
MA University of Chicago
PhD University of Chicago
Professor, Political Science. 1994

BUDZ, Judith
BA University of Michigan
MA Tufts University
MBA Clark University
PhD Northwestern University
Professor, English. 1974

★ **CAGGIANO, Diane P.**
AA Cape Cod Community College
BS Babson College
MBA Babson College
Associate Professor and Undergraduate Evening Program Manager, Business Administration. 1983

CANIATO, Michele
BM Berklee College
MM Boston University
DMA Boston University
Associate Professor, Music. 2000

Year indicates the date faculty/staff joined Fitchburg State College.

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

★ **CARR, Robert**
BS Eastern Michigan University
BGS University of Michigan
MA Eastern Michigan University
PhD Wayne State University
Associate Professor,
Communications/Media. 2002

CARVETH, Rodney A.
BA Yale University
MA University of Massachusetts Amherst
PhD University of Massachusetts Amherst
Assistant Professor,
Communications/Media. 2009

★ **CHEN, Xuzhou (Brady)**
BS Shanghai Teachers University
MS Shanghai Teachers University
MCS North Carolina State University
PhD North Carolina State University
Associate Professor, Computer Science. 2002
On Sabbatical, Fall 2010

CHENOT, D. Keith
BA Ohio University
MFA Lesley University
Assistant Professor, Industrial Technology. 2005

★ **CHETRO-SZIVOS, John**
BA Assumption College
MA, CAGS Assumption College
MBA Anna Maria College
PhD University of Massachusetts, Amherst
Chairperson and Associate Professor and
Graduate Program Chair,
Communications Media. 2000

★ **CHISUNKA, Chola**
BA University of Zambia
MA Syracuse University
PhD Syracuse University
Professor and Graduate Program Chair,
English. 1991

CHRISTY, Rodney
BA Knox College
MA Northern Illinois University
PhD Northern Illinois University
Associate Professor, Political Science. 1999

CIOTTONE, Judith L.
BS College of St. Elizabeth
MA Clark University
PhD Clark University
Professor, Chemistry. 1982

★ **COLBERT, Ronald**
BSEd Fitchburg State College
MEd Fitchburg State College
EdD Boston University
Professor, Education. 1989

CORDUAN, Ellen (CAP)
BFA Central Connecticut State University
MFA University of Illinois, 1982
Associate Professor, Industrial Technology, 1999

★ **CRATSLEY, Christopher**
BA Brown University
PhD Tufts University
Professor and Graduate Program Chair,
Biology. 2000

DABB, William G. Jr.
BS NJ Institute of Technology
MBA University of South Dakota
Instructor, Business Administration. 2010

Year indicates the date faculty/staff joined Fitchburg State College

★ **DECHENE, Lucy I.**
BS University of San Francisco
MS University of California at Riverside
PhD University of California at Riverside
Professor, Mathematics. 1978
On Sabbatical, Spring 2011

DEE, Christine D.
BA College of the Holy Cross
MA Harvard University
PhD Harvard University
Assistant Professor, History. 2006

DEPTULA, Daneen P.
BS Rensselaer Polytechnic Institute
MS University of Memphis
PhD University of Memphis
Assistant Professor, Psychology. 2007

★ **DEROSA, Laurie J.**
BA Bridgewater State University
MA University of Massachusetts
EdD University of Massachusetts
Professor, Education. 1989

DESROCHES, Richard J.
BSBA University of New Hampshire
MBA University of Massachusetts Amherst
CPA State of Connecticut
Instructor, Business Administration. 2010

DEVINE, Christine
BS St. Anselm College
MS University of Massachusetts
Assistant Professor, Nursing. 2002

DIAKITE, Rala I.
BA Trinity College
MA Brown University
PhD Brown University
Chairperson Humanities and Associate
Professor, Languages. 2004

DINDA, Robin D.
AB Davidson College
MMus University of Cincinnati
DMA University of Michigan
Professor, Music. 1991

★ **DUMAS, Robert**
BS Salem State College
PhD University of Arizona
Associate Professor, Nursing. 2000

DUNCAN, Bruce
BA Wesleyan University
BS Worcester Polytechnic Institute
MAR Yale University
MS University of Connecticut
PhD University of Connecticut
Associate Professor, Geo/Physical Sciences,
Chairperson, Geo/Physical Sciences. 2005

DUPREE, Jill
BS Colorado State University
MS University of Colorado
PhD University of Colorado
Assistant Professor, Economics. 2009

ERRISHI, Ali
BA University of Benghazi
MAS University of Benghazi
PhD Boston College
Professor, Philosophy and
Geo/Physical Science. 1988

★ **FARRON-DAVIS, Felicia**
BA San Francisco State University
MA San Francisco State University
PhD University of California, Berkeley
Assistant Professor, Education. 2005

FIELDING, Jennifer A.
BA/BS University of Pittsburgh
MLS Southern Connecticut State University
Library Associate, Library. 2008

FISKE, Jane
BM New England Conservatory
MM New England Conservatory
DMA Boston University
Professor and Co-Chair, CAGS in
Interdisciplinary Studies, Music. 1989

FLINT, Petri
AB Harvard University
BFA Massachusetts College of Art
MFA School of the Museum of Fine Arts
Associate Professor, Art. 1999

★ **GAROFOLI, Laura M.**
BA Fairfield University
MS University of Massachusetts, Amherst
PhD University of Massachusetts, Amherst
Assistant Professor, Psychology. 2005

★ **GIM, Lisa**
BA Georgetown University
MA University of California at Berkeley
PhD Brown University
Professor, English. 2000

GODIN, Jeff
BS Bridgewater State College
MS Bridgewater State College
PhD University of Connecticut
Chair and Associate Professor,
Exercise and Sport Science. 2002

GOLDMAN, Cheryl
BA University of Louisville
MS University of Connecticut
PhD University of Connecticut
Associate Professor, Psychology. 2000

GOLDSTEIN, Stephen D.
BS Boston University
MFA Boston University
Assistant Professor,
Communications/Media. 2004

★ **GOODLETT, Sean**
BA University of Texas
MA Texas Tech University
MA University of Oregon
PhD University of Oregon
Associate Professor, History. 2001

GORDON, Elizabeth S.
BS University of Washington
PhD University of South Carolina
Assistant Professor, Geo/Physical Science. 2007

GOVINDAN, Meledath
BSC University of Calicut
MSC University of Calicut
MS University of Kentucky
PhD University of Georgia
Professor, Chemistry. 1996

★ **GRAY, Patrice**
BA University of Massachusetts, Amherst
MA Emory University
PhD Emory University
Chairperson and Professor, English. 2000

★ **GROMETSTEIN, Randall**
BA Swarthmore College
JD Boston University
PhD Northeastern University
Chairperson Behavioral Sciences and Associate
Professor, Criminal Justice. 2003

GUTH, Lawrence R.
BS Michigan Technological University
MS University of Utah
PhD Rice University
Associate Professor, Geo/Physical Science, Earth Science and Physics. 1998

★ **HANCOCK, John**
BS Ohio Northern University
MA Assumption College
CAGS Assumption College
PhD Professional School of Psychology
Professor and Graduate Program Chair, Psychology. 1992

HARRIS, Robert
BA Colgate University
MFA University of California
Associate Professor, Communications/Media. 2000

HENN, Martin J.
BGS University of Kansas
MA/PhD University of Kansas
Assistant Professor, Humanities/Philosophy. 2010

★ **HIGDON, Gerald**
AB Villa Madonna College
MA University of Kentucky
PhD Lehigh University
MBA Northeastern University
Associate Professor, Mathematics. 1977

★ **HILL, Pamela**
BA Framingham State College
MAT Bridgewater State College
EdD Boston University
Associate Professor and Graduate Program Chair, Education. 1998

HILLIARD, Timothy
BA Keene State University
PhD University of Massachusetts
Assistant Professor, Exercise and Sports Science. 2005

★ **HOBERMAN, Michael**
BA Reed College
MA University of Massachusetts
PhD University of Massachusetts
Associate Professor, English. 2001

★ **HOEY, Margaret T.**
BS Emory University
PhD University of North Carolina
Chairperson and Professor, Biology. 1993

★ **HOGAN, Peter**
BA University of Wales, U.K.
PhD University of Bradford, U.K.
Professor, Psychology. 1982

★ **HOLLINGSWORTH, Beverley**
BS CUNY York College
MBA St. John's University
PhD Walden University
Assistant Professor, Business Administration. 2005

★ **HOWARD, Anne**
BS University of Connecticut
MEd Boston College
PhD Brandeis University
Professor and Graduate Program Chair, Special Education Severe Disabilities and Guided Studies. 1992

★ **HOWE, Randy**
BS Fitchburg State College
MS Fitchburg State College
EdD Boston University
Chairperson and Professor and Graduate Program Co-Chair, Education Leadership and Management Program, Applied Communication: Library Media. 2000

JAMIL, Faize
BS University of Massachusetts Lowell
MS University of Massachusetts Lowell
Assistant Professor, Industrial Technology. 2009

JARAMILLO, Maria
BA Universidad del Valle
MA Syracuse University
PhD Syracuse University
Professor, Spanish. 1986

JEFFKO, Walter
BS University of Bridgeport
MA Fordham University
PhD Fordham University
Professor, Philosophy. 1970

JEWELL, Katherine Rye
BA Vanderbilt University
MA/PhD Boston University
Assistant Professor, History. 2010

KARBASIOUN, Keyvan
BA University of Kansas
BS University of Massachusetts, Amherst
MA University of Kansas
EDD University of Massachusetts
Associate Professor, Languages. 2000

KAUL, Sanjay
BS University of Jammu
MS University of Jammu
MS University of Pennsylvania
PhD Indian Institute of Technology
Professor, Industrial Technology. 1991

★ **KELLNER, Lynne A.**
BA City College of New York
MEd University of Massachusetts, Amherst
PhD University of Massachusetts, Amherst
Associate Professor, Human Services. 1994

★ **KELLY, Nancy**
PhB Wayne State University
MAT Fitchburg State College
PhD University of Massachusetts
Graduate Program Chair, Secondary Education
Professor, English. 1992

★ **KEMPERS, Margot**
BA Brandeis University
MA Stanford University
PhD Brandeis University
Chairperson and Professor, Behavioral Sciences. 1986
On Leave, Fall 2010

★ **KIM, Kwahng**
BS Chung-Ang University
MBA Chung-Ang University
MBA University of Bridgeport
PhD University of New Haven
Associate Professor, Business Administration. 2000

★ **KOURTONINA, Natasha**
PhD Moscow State University
PhD University of Utrecht and University of Amsterdam
Associate Professor, Computer Science. 1999

KRASNER, Jon
BA Muehlenburg College
MFA Boston University
Associate Professor, Communications/Media. 2000

KRIESER, Ronald J.
BA Clark University
PhD Dartmouth College
Professor, Biology. 2008

★ **KRISHNAMURTHY, Aruna**
BA University of Delhi
MA University of Delhi
PhD University of Florida
Associate Professor, English. 2004

LANDER, Frits
Academy Engineer
Engineering Academy of Denmark
Chair and Associate Professor, Computer Science. 1982

★ **LANDRY, Margarite**
BS Columbia University
MA Columbia University
MFA Vermont College
PhD Columbia University
Associate Professor and Undergraduate Evening Program Manager, English. 2001
On Sabbatical, Fall 2010

LAYTIN, Peter
BA University of Wisconsin
MA State University of New York at Buffalo
Professor, Communications/Media. 1977

LEBLANC, Linda
BS Bentley College
MLIS University of Rhode Island
Associate Librarian, Library. 2000

LEE, M. Zachary
BA University of California Santa Cruz
MFA Boston University
Assistant Professor, Communications/Media. 2005

LEVINE, Sara
BA Brandeis University
MS University of Massachusetts, Amherst
PhD University of Massachusetts, Amherst
Associate Professor, Psychology. 2000

★ **LIEBERMAN, Benjamin**
BA Yale University
MA University of Chicago
PhD University of Chicago
Professor, History. 1993

LORENCOVA, Viera
BA Univerzita Komenskehd Slovakia
MA University of Massachusetts Amherst
PhD University of Massachusetts Amherst
Assistant Professor
Communications/Media. 2006

LU, Da-hong
Diploma, University of Science and Technology of Shanghai, China
PhD Wayne State University
Professor, Chemistry. 1991

★ **LWAMUGIRA, Pirudas L.**
BA University of East Africa
MBA St. Joseph's University
PhD Temple University
Professor, Economics. 1991

Year indicates the date faculty/staff joined Fitchburg State College

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

★ **McALOON, Joseph**
BA University of New Hampshire
MBA University of South Dakota
MSPA University of Massachusetts
Associate Professor, and Chairperson, Business Administration and MBA Program Chair. 1984

★ **McANDREW, Claire**
BA Marywood College
MA Georgetown University
EdD Lehigh University
Professor, Mathematics. 1983
On Sabbatical, Fall 2010

McELVAIN, Richard C.
BA Marquette University
MFA Boston University
Professor, English/Theater. 1997

McGEE, F. Matthew
BS Fitchburg State College
MBA Fitchburg State College
MEd Fitchburg State College
Assistant Professor, Industrial Technology. 2008

McKAY, Linda
BSN St. Anselm's College
MS Russell Sage
Chairperson and Associate Professor, Nursing. 1981

McMENAMY, Jannette M.
BA College of the Holy Cross
MA Clark University
PhD Clark University
Associate Professor, Psychology. 2004

★ **MABEE, Frank P.**
BA University of Tennessee
MA University of So. California
PhD University of So. California
Assistant Professor, English. 2008

★ **MAHADEV, Nadimpalli**
Math University of Waterloo
PhD University of Waterloo
Professor, Computer Science. 1999

★ **MARTYNIUK, Irene**
BA Kent State University
MA Kent State University
PhD University of South Carolina
Professor, English. 1996

MAZARD WALLACE, G.L.
BA Washburn University
PhD University of Massachusetts Amherst
Assistant Professor, Sociology. 2008

MEYER, Anne F.
BSN University of Delaware
MS Boston College
Instructor, Nursing. 2006

MOKBEL, Hala N.
BS Cairo University
MS/PhD Worcester Polytechnic Institute
Assistant Professor, Industrial Technology. 2010

MOORE, Sarah (Sally) B.
BA Vassar College
BFA Massachusetts College of Art
MFA Massachusetts College of Art
Assistant Professor, Art. 2008

MORGAN, Kelly C.
AA Casper College
BA Viterbo College
MFA Case Western Reserve University
Professor, English/Theater. 1997
On-Leave 2010–2011

MORRISON, Francis D.
AB University of Massachusetts
JD Boston College
Assistant Professor, Business Administration. 1979

★ **MOSER, Joseph P.**
BFA Emerson College
MA University of Texas at Austin
PhD University of Texas at Austin
Assistant Professor, English. 2008

★ **MRVICA, Ann R.**
BA Ryerson Polytechnical Institute
MEd Worcester State College
EdD University of Massachusetts
Professor, Communications/Media. 1983

★ **MUNSON, Wayne**
BFA University of Connecticut, School of Fine Arts
MA University of Connecticut, School of Fine Arts
PhD New York University
Professor, Communications/Media. 1991

MURRAY, Nancy L.
BS Fitchburg State College
MEd Fitchburg State College
EdD University of Massachusetts Lowell
Assistant Professor, Education/SPED. 2007

★ **MURRAY, Thomas**
BA Iona College
MA Harvard University
PhD Harvard University
Professor, English. 1986

NASTASEE-CARDER, Angela
BA West Chester State College
MA Ball State University
PhD Penn State University
Associate Professor, English/Speech. 1999

NESS, Marjorie S.
BM Oberlin College
MM Northwestern University
DMA University of Iowa
Associate Professor, Music. 2004

★ **NOMISHAN, Daniel A.**
NCE University of Lagos
BS Morgan State University
EdD Indiana University of Pennsylvania
Professor, Education. 1991

◆ **NOONAN, James**
BS Suffolk University
MBA Suffolk University
MSBE Suffolk University
PhD Southern California University
Professor, Business Administration. 1981

NOSEK, Michael T.
BS University of Lowell
PhD Tufts University
Associate Professor, Biology. 2000

NWANKWO, Jason
BS University of Nigeria
MS University of Wisconsin
PhD University of Wisconsin
Professor, Sociology. 1995

OBERMEYER-SIMMONS, Helen
BFA Stephens College
MFA Rochester Institute of Technology
Professor, Communications/Media. 1981

O'CONNOR, Aisling M.
BS University of Limerick
PhD University of Limerick
Assistant Professor, Chemistry. 2008

OU, Jack
BS Rutgers University
MS Rutgers University
PhD Rutgers University
Assistant Professor, Industrial Technology. 2009

★ **OUELLETTE, Glenda**
BA Lowell State College
MEd University of Massachusetts
MEd Rivier College
EdD University of Massachusetts
Associate Professor, Education. 2001

★ **PAUL, John J.**
BRE William Tyndale College
MA Trinity Evangelical Divinity School
MA University of Wisconsin
PhD University of Wisconsin
Professor, History. 1991

PELLINGER, Thomas K.
BS North Carolina State University
MA Furman University
PhD University of Oregon
Assistant Professor
Exercise & Sport Science. 2008

PEREIRA, Audrey
BS Fitchburg State College
MSCIS Bentley University
Assistant Professor, Business Administration. 2009

★ **PICONE, CHRISTOPHER M.**
BA College of the Holy Cross
PhD University of Michigan
Associate Professor, Biology/Chemistry. 2004

POWERS, Barbara
BS University of North Carolina
MS Boston College
EdD University of Massachusetts, Lowell
Associate Professor, Nursing. 1974

★ **RAILTON, Benjamin, A.**
BA Harvard University
PhD Temple University
Assistant Professor, English. 2005

REEVES, Rene
AS Community Technical College
BA University of Connecticut
MA University of Wisconsin
PhD University of Wisconsin
Assosiate Professor, History. 2000

ROBERTS, Charles
BA Goddard College
MFA Tufts University
Associate Professor, Communications/Media. 1999

ROBERTS, Dawn E.
BS University of Massachusetts Lowell
MS University of Massachusetts Lowell
PhD University of Massachusetts Amherst
Assistant Professor,
Exercise & Sport Science. 2008

Year indicates the date faculty/staff joined Fitchburg State College

ROMANO, Bruce U.
BA University of Massachusetts Boston
MA Brandeis University
PhD Brandeis University
Assistant Professor, Mathematics. 2009

ROBEY, Jessica C.
BFA Academy of Art College
MA University of California
PhD University of California
Assistant Professor, Art History. 2007

ROSA, Susan B.
BS Framingham State College
MEd Fitchburg State College
EdD University of Massachusetts Amherst
Associate Professor, Education. 2006

SAREFIELD, Daniel C.
BA Miami University
MA Ohio State University
PhD Ohio State University
Assistant Professor, History. 2007

SBROGNA, Sheila
BSN Boston College
MSN University of Massachusetts
Assistant Professor, Nursing. 2004

SCANNELL, Ann
BSN Villanova University
MSN Catholic University
ND Case Western Reserve University
Professor, Nursing. 1996

SCHILLING, Hildur E.
BA Southern Methodist University
MA Southern Methodist University
PhD University of Massachusetts Amherst
Assistant Professor, Psychology. 2006

SCHILLING, Thomas, H.
BS Fitchburg State College
ALM Harvard University
PhD University of Massachusetts
Professor, Psychology. 1998

SCHMIDT, Doris
BA State University of New York at Binghamton
MA New York University
PhD New York University
Associate Professor, English. 1998

SCHOENFELD, Thomas A.
BA Lawrence University
MS Rutgers University
PhD Rutgers University
Assistant Professor, Biology. 2007

SHANE, Christine
BS University of Massachusetts, Amherst
MS Syracuse University
PhD Brandeis University
Associate Professor and Chair, Not-for-Profit Management Certificate Program, Behavioral Sciences. 2005

SHIELDS, Allison
BSN Fitchburg State College
MS University of Massachusetts, Lowell
Instructor, Nursing. 2005

★ **SIDES, Charles**
BA Clemson University
MA Clemson University
PhD University of Massachusetts
Professor, Communications/Media. 1990

★ **SNYDER, Mark A.**
BS M.I.T.
MS Columbia University
PhD Yale University
Professor, Mathematics. 1993

SPERO, Joshua
BA Brandeis University
MA University of Michigan
PhD Johns Hopkins University
Associate Professor,
Social Sciences/Political Science, 2003

STAAB, Peter L.
BS University of Utah
MS University of Colorado
PhD University of Colorado
Assistant Professor, Mathematics. 2006

STEVENS, Julie A.
BS Fitchburg State College
MS/MBA University of Phoenix Online
Instructor, Nursing. 2009

★ **STOKES, Shari**
BA Oberlin College
MA Columbia University
MEd Columbia University
EdD Columbia University
Chairperson and Professor, Education. 1991

STONE, Deborah A.
BSN Texas Women's University
MS Fitchburg State College
Instructor, Nursing. 2008

SULLIVAN, Annette S.
BS Salem State College
MA Fitchburg State College
EdD University of Massachusetts Lowell
Assistant Professor, Education/ELED. 2007

SULLIVAN, Colleen J.
BS Frostburg State University
MA/PhD University of Maryland
Assistant Professor, Behavioral Sciences. 2010

SUSKIND, Diana
BS State University of New York
MS Syracuse University
EdD University of Illinois
Associate Professor, Education. 1991

★ **TAYLOR, Stephen**
AB Harvard College
MS Worcester Polytechnic Institute
PhD Worcester Polytechnic Institute
Associate Professor and Graduate Program Chair, Computer Science. 2002

★ **THOMAS, Howard**
BS State University of New York at Geneseo
MS Adelphi University
PhD Northeastern University
Professor, Biology. 1981

★ **THOMAS, Teresa Fava**
BS Fitchburg State College
MA Clark University
PhD Clark University
Associate Professor, History. 1998

TRACY, Kisha G.
BA University of Evansville
MA/PhD University of Connecticut
Assistant Professor, English. 2010

TRIFILO, Richard
BA Fitchburg State College
BS University of Massachusetts
MS Boston College
Assistant Professor, Nursing. 1983

TURK, Michael
AB Princeton University
MA Harvard University
PhD Harvard University
Professor, Economics. 1982

TURNBULL, Nancy C.
BA Madison College
MEd James Madison University
MLIS University of South Carolina
Library Associate, Library. 2008

★ **VOSTOK, Gary**
BS Clark University
MBA Babson College
CPA, CMA, CFM, Assistant Professor,
Business Administration. 1979

WADSWORTH, Susan
AB Colby College
MA Tufts University
MFA Cranbrook Academy of Art
Professor, Art. 1992

WALSH, Elizabeth R.
BA Northern Michigan University
JD University of Wyoming
MA/MLS University of Albany
Assistant Professor, Criminal Justice. 2005

WARMOUTH, Jeffrey
BA University of Michigan
MFA Tufts University
Professor, Communications/Media. 2000

WEHE, Amy
BA Drake University
PhD Iowa State University
Assistant Professor, Mathematics. 2005

WEISS, David P.
BSW University of Illinois
MA San Diego State University
PhD Claremont Graduate University
Assistant Professor, Criminal Justice. 2008

★ **WEIZER, Paul**
BA Temple University
MA Temple University
PhD Temple University
Chairperson and Professor, Political Science, Criminal Justice. 1998

WELLENS, Charles H.
BS San Diego State University
MBA Bryant College
Associate Professor,
Business Administration. 1983

WELLMAN, Robert
BA University of California
MS Long Island University
PhD University of Connecticut
Professor, Behavioral Sciences. 1995

WHITFIELD, Wayne A.
BA/MA the George Washington University
PhD University of Maryland
Graduate Program Chair,Technical Education
Assistant Professor, Industrial Technology. 2005

Year indicates the date faculty/staff joined Fitchburg State College

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

★ **WIEBE, RICHARD P.**
BA Binghamton University
JD Buffalo Law School
MA University of Arizona
PhD University of Arizona
Professor, Criminal Justice. 2004

WIGMORE, Danielle
BS Skidmore College
MS University of Massachusetts Amherst
PhD University of Massachusetts Amherst
Assistant Professor, Exercise & Sport Science. 2006

★ **WILLIAMS, Ian**
BS University of Toronto
MA University of Toronto
PhD University of Toronto
Assistant Professor, English. 2005

★ **WILLIAMS, Susan**
BA University of Denver
PhD University of Delaware
Professor, and Graduate Program Co-chair, History. 1993
On Sabbatical, 2010–2011

YU, Jiang
BS University of Science and Technology of China
MS Western Michigan University
PhD Western Michigan University
Professor, Geo/Physical Science. 1996

★ **ZEKERIA, Abdulkeni**
BS University of Asmara
MS University of Wyoming
PhD Howard University
Associate Professor, Mathematics. 1987

ZHANG, Jane Xinxin
BE Xi'an Jiaotong University, China
MRP Washington State University
PhD University of Idaho
Assistant Professor, Geo/Physical Science. 2006

★ **ZIVIC, Louis**
BA Michigan State
MS Cornell University
EdD Vanderbilt University
Professor, Business Administration. 1989

Part-Time Faculty

MSCSA Contract:

The Nursing department may hire part-time permanent positions in Nursing.

KRESSY, Jean
BS Columbia University
MS University of Massachusetts
Part-time Instructor, Nursing. 1973

MARIOLIS, Tara
BS Hartwick College
MSN Fitchburg State College
MS Boston University
Part-time Instructor, Nursing. 1992

MESKAUSKAS, Lola M.
BSN Fitchburg State College
MEd Worcester State College
Part-time Instructor, Nursing. 2004

Year indicates the date faculty/staff joined Fitchburg State College

Adjunct Graduate Faculty

Membership on the Adjunct Graduate Faculty is open, by invitation, to qualified and competent experts, external to the Fitchburg State University faculty, who possess skills, education, and experience in academic and/or professional areas which complement the Graduate and the Associate Graduate Faculties, and who have had two successful department evaluations.

AHERNE, John
BS Boston State College
MEd Bridgewater State
CAGS Northeastern University
EdD University of Massachusetts, Amherst
Education Leadership and Management. 1998

ALLEY, Sharon
BS University of Utah
MS University of Utah
Visiting Lecturer, Geo/Physical Science. 1996

BAIL, Paul
BS University of Massachusetts
AM, PhD University of Michigan
Visiting Lecturer, Psychology. 1989

BEARDMORE, Richard
BS Fitchburg State College
MEd Fitchburg State College
CAGS Anna Maria College
Visiting Lecturer, Education. 2003

BRADY, Kathryn
BS Fitchburg State College
MA University of Northern Colorado
Visiting Lecturer, Special Education. 1989

BOTHWELL, Ian
BA Andrews University
MA Loma Linda University, Riverside
EdD University of California Berkeley
Visiting Lecturer, Education. 1995

BOTHWELL, H., Roger
BA Andrews University
MAT Andrews University
PhD Drake University
Visiting Lecturer, Education. 1995

BOUVIER, David
BS Fitchburg State College
MEd Rhode Island College
MEd Fitchburg State College
Visiting Lecturer, Technology Education. 1995

BUDD, Kelly
BA Franklin Pierce College
MAT Fitchburg State College
MEd Keene State College

CAHILL, Gail
BS Fitchburg State College
MEd University of Massachusetts at Boston
MEd Boston University
EdD University of Massachusetts at Lowell
Visiting Lecturer, Special Education. 1998

CHASE, Valerie
BA St. John's University
MEd Bridgewater State College
Visiting Lecturer, Special Education. 1986

COLEMAN, Steven
BA Fitchburg State College
PhD Cornell University
Visiting Lecturer, Psychology.

CONROY, Charles
BA Fordham University
MS Iona College
MS Manhattan College
EdD Columbia University
Visiting Lecturer, Educational Leadership and Management. 1988

CREEDON, Chandler
BA St. Anselm College
MA, CAGS, Anna Maria College
Visiting Lecturer, Psychology. 1989

CULVER, Henry
BS Worcester State College
MA Assumption College
EdD University of Massachusetts at Amherst
Visiting Lecturer, Psychology, 1994
and Criminal Justice, 1996.

DENIG, William
BS Siena College
MS Utah State University
PhD Utah State University
Visiting Lecturer, Geo/Physical Science. 1995

DUPREY-GUTIERREZ, Irene
BS Bridgewater State College
MEd California State
EdD University of Massachusetts at Amherst
Visiting Lecturer, Education. 1997

FRECHETTE, Stephen
BS Central New England College
MS Fitchburg State College
Visiting Lecturer, Computer Science. 1990

FURTADO, Stephen
BA Bridgewater State College
MA Bridgewater State College
PhD LaSalle University
Visiting Lecturer, Educational Leadership.

GALLO, Melanie
BA University of Massachusetts
MEd Fitchburg State College
Visiting Lecturer, English. 1997

GAUVIN, William
BS Fitchburg State College
MS Fitchburg State College
Visiting Lecturer, Computer Science. 1988

GUTIERREZ, Irene Duprey
BS Bridgewater State College
MEd California State University
EdD University of Massachusetts, Amherst
Visiting Lecturer, Educational Leadership.

IPPOLITO, Michael
BS New Haven State Teachers College
MA Fairfield University
EdD University of Bridgeport
Visiting Lecturer, Educational Leadership and Management. 1995

JOHNSTON, Christine
BA Regis College
MAT Fitchburg State College
Visiting Lecturer, English.

KING, Mary
BSEd Worcester State College
CAGS/MA Anna Maria College
EdD University of Massachusetts
Behavorial Sciences 1980

LUZZETTI, Anthony
BA Trenton State College
MEd Lehigh University
EdD Lehigh University
Visiting Lecturer, Educational Leadership.

MAHADEV, Aparna
MSC University of Madras
MS Indian Institute of Technology
PhD University of Waterloo
Visiting Lecturer, Computer Science. 2000

MARA, John
BS Fitchburg State College
MEd Fitchburg State College
CAGS Fitchburg State College
Education Leadership and Management. 1998

McCARTHY, John E.
BA Providence College
MEd Bridgewater State College
CAGS Boston University
Visiting Lecturer, Educational Leadership

MAGUIRE, Russell
BA State University of New York at Buffalo
MA Northeastern University
Visiting Lecturer, Special Education. 1987

MCGUIRE, Ronald
BDIC in Music Psychology-UMASS Amherst
MEd Fitchburg State College
Visiting Lecturer, MAT Programs. 1995

MURRAY, Anne
BA Tufts University
MEd Fitchburg State College
EdD University of Massachusetts, Amherst

O'HEARN-CURRAN, Margaret
BS University of Massachusetts
MS Fitchburg State College
CAGS University of Massachusetts
PhD University of Massachusetts
Education. 2004

PACKARD, Paula
BS University of Massachusetts, Amherst
BS Fitchburg State College
MA Fitchburg State College
Visiting Lecturer, Biology. 1990

PASQUALONE, Georgia
BSN Boston University
MSFS University of New Haven
MS Fitchburg State College
Visiting Lecturer, Nursing

PAWLOUSKI, Paul
BA Fitchburg State College
MEd West Virginia University
EdD West Virginia University
Visiting Lecturer, Technology Education. 1996

REED, Margaret
BS Maryhurst College
MA Framingham State College
EdD Clark University. 1990

SCARANO, Richard F. Esq.
BS Stonehill College
MA Suffolk University
JD Southern New England School of Law
Visiting Lecturer, Educational Leadership

SEMERJIAN, Harry
BM Boston University College of Music
MA Boston University
EdD University of Massachusetts. 1960

SEMERJIAN, Helena
BS Fitchburg State College
MEd Boston University
MEd Fitchburg State College
Visiting Lecturer, Humanities.

SQUARCIA, Paul
BS Boston University
MEd University of New Hampshire
CAGS Boston University
EdD Boston College
Visiting Lecturer, Educational Leadership and Management. 1995

SNYER, Kristen, Esq.
BA College of the Holy Cross
JD Suffolk University Law
Visiting Lecturer, Educational Leadership and Management. 1994

THIBADEAU, Susan
BS Emmanuel College
MEd Rhode Island College
PhD University of Kansas. 1990

SPENCER, Richard
BS Alfred University
MA Alfred University
PhD State University of New York at Buffalo
Visiting Lecturer, Psychology. 2008

TYNAN, Edward
BA Stonehill College
MEd Bridgewater State College
EdD Boston College
Educational Leadership and Management. 1998

VAN DE CARR, Therese
BSEd State University College, Genesco
MEd Boston College
EdD Boston University. 1993

WILLIAMS, Miriam
BA Brandeis University
MA Clark University
Visiting Lecturer, Psychology. 1997

WU, Alan
BSEE University of Tennessee at Knoxville
MSEE University of Tennessee at Knoxville
Visiting Lecturer, Computer Science. 1995

YENCO, Carol
BS Fitchburg State College
MEd Fitchburg State Collge
Visiting Lecturer, Education. 2001

ZOLLO, Felix
BS Suffolk University
MEd University of Massachusetts
EdD Southeastern Nova University
Visiting Lecturer, Educational Leadership and Management. 1995

Adjunct Undergraduate Faculty (Evening)

All Fitchburg State University Undergraduate Faculty members by virtue of their university appointment are eligible to teach in the Division of Continuing Education. In addition, membership on the Undergraduate Adjunct Faculty for Continuing Education is open, by invitation, to qualified and competent experts, external to the Fitchburg State University faculty, who possess skills, education, and experience in academic and/or professional areas, and who have taught a minimum of eight undergraduate course during the previous three academic years. Undergraduate part-time faculty are recruited to teach courses for faculty who are on sabbatical or leaves of absence.

AUBUCHON, Jeffrey W.
BA Saint Anselm College
MA Fitchburg State College
Social Sciences. 2005

CHARALAMBOUS, Mark
BA San Francisco State University
AA College of Marin
Mathematics. 2002

COSENZA, William R. Jr.
BS Fitchburg State College
MEd Fitchburg State College
Industrial Technology. 2004

CRAWLEY, John
BS Central Connecticut State University
MS Lesley College
JD New England School of Law
Visiting Lecturer,
Business Administration. 1990

CREDIT, Larry P.
AS North Shore Community College
BS Salem State College
MS Lesley University
OMD SAMRA University of Oriental Medicine
Exercise & Sport Science. 2004

DENNINGTON, John
BA Windham College
MA Rutgers University
English. 2000

DESORBO, Frank A.
BA Siena College
MA Fordham University
PhD New York University
Social Sciences. 2004

FRANTISKA, Joseph
BA Westfield State College
BS Fitchburg State College
MS Fitchburg State College
MBA Western New England College
EdD University of Massachusetts, Amherst.
Visiting Lecturer, Computer Science. 1990

Year indicates the date faculty/staff joined Fitchburg State College

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

FULLERTON, Melynda Beth
BS Central Missouri State University
MA Pittsburg State University
English. 2002

GESIN, Michael
BA Worcester State College
MA Brandeis University
PhD Brandeis University
Social Sciences. 2003

JACKSON, Joanna
BS Fitchburg State College
MS Fitchburg State College
English. 2004

KING, Mary
BSEd Worcester State College
CAGS/MA Anna Maria College
EdD University of Massachusetts
Behavorial Sciences 1980

KOVACH, Jeffrey D.
BS Franklin & Marshall College
MA William Paterson University
Social Sciences. 2005

LANGE, Ronald F.
BS University of Illinois
PhD University of Minnesota
Mathematics. 2004

LENT, Richard
BS University of Massachusetts at Amherst
MS University of Vermont
PhD State University of New York at Stony Brook
Visiting Lecturer, Computer Science. 1999

LONGEY, Suzanne
BS University of Connecticut
MEd Fitchburg State College
Visiting Lecturer, Humanities. 1992

MARTIN, Shane J.
BS Fitchburg State College
MS Suffolk University
Social Sciences. 2005

MCCLINTOCK, Russell
BA Siena College
MA Providence College
PhD Clark University
Visiting Lecturer, Social Sciences. 1999

MCKEON, John Jr.
ABA Worcester Jr. College
BS Southern Illinois University
MS Southern Illinois University
Business Administration. 2004

MOORE, Jeanne
BS Millersville State College
MA Tufts University
PhD Tufts University
English. 2004

O'MALLEY, Mark
BS University of Tampa
MEd University of Tampa
Industrial Technology. 2004

OWENS, Suzanne
BA University of Western Ontario
MFA Emerson College
English. 1993

PACKARD, Robert
BS Fitchburg State College
Med Fitchburg State College
CAGS Fitchburg State College
Visiting Lecturer, Industrial Technology. 1995

PEACH, Robert
BS, MEd Salem State College
Visiting Lecturer, Industrial Technology. 1992

SCAPPARONE, Renee
AA Mount Wachusett Community College
BS Fitchburg State College
MBA Anna Maria College
PBA University of Phoenix
Visiting Lecturer,
Business Administration. 1990

STASSEN, Michael
BA Earlham College
MA Indiana University
Mathematics. 2004

WALTERS, Kathryn
BA Northern Michigan University
MA Northern Michigan University
English. 2002

Adjunct Undergraduate Faculty (Day)

Each semester, the university hires adjunct faculty members to teach additional sections of courses in the departments. The number of adjuncts each semester is based on need. Adjuncts typically have completed a master's degree in their field of specialization although many have doctorates. For some areas of specialization such as nursing and industrial technology, undergraduate adjuncts may have a bachelor's degree and relevant experience. Faculty who teach three consecutive semesters at the university are identified as unit members under the contract. Since the catalog is posted to the website once a year, the list of adjunct faculty teaching in a given semester will be posted on the Academic Affairs website.

Professors Emeriti

ADDORISIO, RoseAnne
MEd Professor Emerita of Education

ANTILLA, Faith
Emerita Librarian

ARMSTRONG, Edward
MS Professor Emeritus of Biology

ARNOLD, Lawrence
Professor Emeritus of History

ANGELINI, Joseph A.
CAGS Professor Emeritus of Mathematics

BANNON, Lillian
MA Professor Emerita of Nursing

BARBARESI, Patricia
PhD Professor Emerita of Education

BARBATO, James
PhD Professor Emeritus of Geography and Earth Science

BARKER, William
PhD Professor Emeritus of English

BATTINELLI, Thomas
EdD Professor Emeritus of Exercise Science

BERSTEIN, Alan
PhD Professor Emeritus of Behavioral Science

BESNIA, Howard J.
MFA Professor Emeritus of Industrial Technology

BLAKE, Simone
Emerita Librarian

BOND, George
PhD Professor Emeritus of Biology

BOURN, Colin
MA Professor Emeritus of English

BROWNING, Grainger
PhD Professor Emeritus of Sociology

BURKE, John
PhD Professor Emeritus of Foreign Languages

CAMMUSO, Barbara
PhD Professor Emerita of Nursing

CARPENTER, Joseph
MEd Professor Emeritus of Industrial Technology

CARSON, Norman
MS Professor Emeritus of History

CASEY, Elizabeth Ross
EdD Professor Emerita of Education

CASEY, William
Emeritus Librarian

CHAMPLIN, Robert
PhD Professor Emeritus of Geology

CONDIKE, George
PhD Professor Emeritus of Chemistry

CONDON, Richard
EdM Professor Emeritus of Mathematics

COX, Catherine
AM Professor Emerita of Geography

CROSSON-TOWER, Cynthia
EdD Professor Emerita of Human Services

Year indicates the date faculty/staff joined Fitchburg State College.

CROWLEY, Harry L.
EdD Professor Emeritus of Behavioral Science

CUNNINGHAM, Lee
DPE Professor Emeritus of Physical Education

DECESARE, Richard A.
PhD Professor Emeritus of Philosophy

DEAN, Veva K.
PhD Professor Emerita of Geography

DENIKE, Lee
PhD Professor Emeritus of Communications/Media

DRISCOLL, Edward F.
PhD Professor Emeritus of Industrial Arts

DRISCOLL, Rita D.
EdD Professor Emerita of Nursing

DUFAULT, John
PhD Professor Emeritus of Behavioral Science

FANDREYER, Ernest
EdD Professor Emeritus of Mathematics

FARIAS, Joseph C.
MEd Professor Emeritus of Industrial Arts

FISK, Elizabeth
MSN Professor Emerita of Nursing

FITZGIBBON, William H.
EdM Professor Emeritus of Communications/Media

FLYNN, Katherine
MSEd Professor Emerita of Special Education

FREDETTE, Norman
EdD Professor Emeritus of Physics

GARDULA, Robert
PhD Professor Emeritus of Geography

GAUMOND, John
MEd Professor Emeritus of Education

GERECKE, Lillian
MS Emerita Librarian

GIOVINO, Rosemarie
EdD Professor Emerita of Special Education

GOLDMAN, William J.
EdD Professor Emeritus of Special Education

GRABAR, Terry
PhD Professor Emerita of English

GUINDON, Francis X.
EdD Professor Emeritus

HANLEY, Mary Ann
EdD Professor Emerita of Psychology

HANSON, Erling
EdM Professor Emeritus of Industrial Technology

HARTE, Lloyd
EdD Professor Emeritus of Industrial Technology

HASKINS, Elizabeth M.
MS Professor Emerita of Mathematics

HETZEL, Charles
PhD Professor Emeritus of Education

HOROWITZ, Lillian
EdM Professor Emerita of English

HOTCHKISS, Anita
PhD Professor Emerita of Psychology

HUMPHREYS, Catherine
MSN, CAGS, Professor Emerita of Nursing

KING, Mary
EdD Professor of Behavioral Sciences

KOKERNAK, Robert
PhD Professor Emeritus of Industrial Technology

KRAWIEC, Bernice M.
MS Professor Emerita of Nursing

LEE, Robert R.
EdD Professor Emeritus of Humanities

LIGHT, Barry
EdD Professor Emeritus of Mathematics

LOCKE, Norman C.
MEd Professor Emeritus of Communications/Media

LORENZEN, Louis
MFA Professor Emeritus of Art

LYSTILA, Doris V.
MEd Professor Emerita of Education

McAVOY-WEISSMAN, Muriel G.
PhD Professor Emerita of History

MCCAFFREY, Marilyn
PhD Professor Emerita of English

MADDEN, Barbara
EdD Professor Emerita of Nursing

MANEY, Elizabeth
MEd Professor Emerita of Education

MARION, Mildred
MS Professor Emerita of Nursing

MAY, Barbara
MS Professor Emerita of Nursing

MAZEIKA, John J.
MEd Professor Emeritus of Counseling

MELVIN, Harold
ThD Professor Emeritus of Sociology

MERRIAM, George H.
PhD Professor Emeritus of History

MICCICHE, Pasquale
PhD Professor Emeritus of History

MILLER, Frederick R.
MEd, CAGS Professor Emeritus of Industrial Technology

MILLER, George
PhD Professor Emeritus of Early Childhood Education

MILLER-JACOBS, Sandra
EdD Professor Emerita of Special Education

MOON, John V.
PhD Professor Emeritus of History

MOORE, Jeanne
PhD Professor Emerita of Languages

MORELAND, Hattie W.
EdD Professor Emerita of Special Education

MURPHY, George
MBA Professor Emeritus of Business Administration

MURPHY, Caroline A.
PhD Professor Emerita of Economics

NEUNHERZ, Rose Marie
MS Professor Emerita of Biology

NORTON, Donald
PhD Professor Emeritus of History and Political Science

OUELLETTE, Janice
Emerita Librarian

PALLY, Erwin
PhD Professor Emeritus of English

PASSIOS, Irene
MEd Professor Emerita of Education

PHELPS, Edson
MEd Professor Emeritus of Industrial Technology

POWERS, Francis P.
EdD Professor Emeritus of Education

RAPP, Donald
EdD Professor Emeritus of Special Education

ROACHE, Mary L.
EdM Professor Emerita of Education

RYDER, David
EdD Professor Emeritus of Communications/Media

SCHMIDT, Donald
PhD Professor Emeritus of Biology

SEMERJIAN, Harry
EdD Professor Emeritus of Music

SGAN, Mabel
PhD Professor Emerita of Psychology

SHAUGHNESSY, Robert
MNS Professor Emeritus of Computer Science

SIMMONS, Anna G.
AM Professor Emerita of Geography

SIPILA, Signe Antila
EdM Professor Emerita of Education

SPENCER, Richard
PhD Professor Emeritus of Psychology

TAYLOR, Margaret S.
DNSc Professor Emerita of Nursing

TAYLOR, Rowena
MS Professor Emerita of Nursing

THERRIEN, Stephen
MNS Professor Emeritus of Industrial Technology

THOMAS, Edmund
PhD Professor Emeritus of History

THOMAS, Rene
MEd Professor Emeritus of Industrial Technology

WAGNER, Lynne
EdD Professor Emerita of Nursing

WIEGERSMA, Nancy
PhD Professor Emerita of Economics

WORFOLK, Jean
EdD Professor Emerita of Nursing

YEE, Nancy
PhD Professor Emerita of English

ZOTTOLI, Robert
PhD Professor Emeritus of Biology

Year indicates the date faculty/staff joined Fitchburg State College

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

Administrators Emeritus

MICHAEL RIVARD
MBA Vice President for Finance Emeritus

MICHELE ZIDE
EdD Associate Vice President for
Academic Affairs Emerita

Trustees and Administrators

Board of Trustees

GREGG P. LISCIOTTI
3/1/06, Chairman, (Reappt.) 3/1/11

CAROL T. VITTORIOSO
Vice Chairwoman, 3/1/10

ROBERT A. PONTBRIAND
3/1/07, (Reappt.) 7/31/12

MARTIN F. CONNORS, JR.
7/31/12

BEVERLY S. FARIAS
4/1/07, (Reappt.) 4/2/12

DAVID R. MULLANEY
3/1/07, (Reappt.) 4/2/12

ERIC GREGOIRE
Student Trustee 6/30/2010

GLADYS RODRIGUEZ-PARKER
3/1/2014

CYNTHIA M. STEVENS
3/1/2014

Office of the President

Robert V. Antonucci
President
BS Fitchburg State College
MEd Fitchburg State College
EdD Boston University. 2003

Michael V. Shanley
Executive Assistant to the President for
External Affairs
BA Providence College. 1985

Gail Doiron
Administrative Assistant to the President. 1994

James Hamel
Chief of Campus Police
AA Mount Wachusett Community College
BS Springfield College. 1974

Jayne Sambito
Director, Human Resources-Payroll
AS Mount Wachusett Community College
BS Fitchburg State College. 1996

Jessica L. Murdoch
Director, Human Resources & Affirmative Action
ABA Mount Wachusett Community College.
BS Fitchburg State College. 2000

Mary Chapin Durling
Coordinator, Cultural Affairs
BA Keene State
MEd Fitchburg State College. 1995

Matthew Bruun
Director of Public Relations
BA Syracuse University. 2009

Michael Marcil
Staff Assistant/Police Lieutenant
Massachusetts State Police Academy. 1987

Operations

Jay D. Bry
Chief Operating Officer
BS Purdue University
MS Purdue University. 1999

Richard A. McCluskey
Staff Assistant, Operations Manager
Facilities Scheduling and Special Events. 1980

Mary Beth McKenzie
Executive Director of Administrative Services
BA Berea College
MA Bowling Green State University. 1992

Office of Development and Alumni Relations

Karen E. Sharpe
Executive Director of Institutional
Advancements
BA Clark University. 2007

Karen Frank Mays
Grants Development Coordinator
BS Skidmore College
MEd Fitchburg State College. 2001

Michael Kushmerek
Alumni Coordinator
BA Fitchburg State College

Office of Academic Affairs

Michael Fiorentino, Jr.
Executive Vice President/Academic Affairs
BSEd Fitchburg State College
MEd Boston University
EdD University of Massachusetts. Amherst 1974

Shirley A. Wagner
Associate Vice President, Academic Affairs
BA State University of New York at Buffalo
MA University of Massachusetts
PhD University of Massachusetts. 1977

Terrance J. Carroll
Director, Planning & Institutional Research
AB Northeastern University
MEd Fitchburg State College. 1974

Stephen B. Wall-Smith
Director, Office of Assessment
BA New York University
St Paul School of Theology
MA University of Missouri—Columbia
PHD University of Missouri—Columbia. 2007

Melissa Demerest
Executive Assistant to EVP/AA
BS Fitchburg State College. 1992

Robert Foley
Director of the Library
AB Stonehill College
MSL Western Michigan University. 1979

Brenda Coleman
Staff Assistant
for Teaching American History Grant
BS Fitchburg State College
MBA Fitchburg State College. 1998

Angele Goss
Education Coordinator, Upward Bound
BS Occupational Ed.
Fitchburg State College. 1999

Julie Primeau
Director, Upward Bound
BSED Fitchburg State College. 2000

Joanne Rivard
Staff Assistant to EVP/AA

Dean of Graduate and Continuing Education

Catherine Canney
Dean, Graduate and Continuing Education
BS Bridgewater State College
MEd Fitchburg State College. 1984

Brian Bercier
Assoicate Dean
Graduate and Continuing Education
BS Assumption College
MA Assumption College. 2008

Michael Leamy
Coordinator of Distance Learning
BS Bentley College
MBA Nichols College
EdD Breyer State University. 2006

Lisa Moison
GCE Program Advisor and Retention Specialist
BS Fitchburg State College
MA Mercy College 2007

Kelly Norris
Director, Graduate and Continuing
Education Marketing
BS/ MBA Fitchburg State College. 2002

Angela Palmer
Director, Extended Campus
and Professional Studies
BA Concordia University
BFA Concordia University
MA University of Arizona
EdD University of Arizona. 2005

Carolyn Poirier
Human Resource Coordinator
Graduate and Continuing Education
AS Mount Wachusett Community College.
1995

Dean of Education

Elaine E. Francis
Dean of Education and Professional Studies
BSEd Fitchburg State College
MS Lesley College
EdD University of Massachusetts. 1978

Ruth Joseph
Associate Dean/Principal (Interim)
McKay Campus
BS Ohio University
MED Boston College
EdD University of Massachusetts Lowell. 2008

Year indicates the date faculty/staff joined Fitchburg State College.

Ann Hogan
Director of Education Licensure,
Coordinator of Assessment
BA Indiana University
MA University of Colorado. 2006

Pierina Murray
School Nurse, McKay Campus School
BS Fitchburg State College. 1992

Dean of Enrollment Management

Pamela McCafferty
Dean Enrollment Management
BA Colgate University
MA Tufts University. 1997

Nancy McLaughlin
Staff Associate/Enrollment Management
BS/MA Fitchburg State College. 1984

Lecia Schuster
Staff Assistant, Enrollment Management. 1999

Admissions Office

Kay Reynolds
Director of Admissions
BA Lafayette College. 2010

Cindy Campbell
Assistant Director of Admissions
BA Mount Union College
MEd Worcester State College. 1995

Alexandra DiNatale
Admissions Counselor
BS Fitchburg State College. 2008

Gretchen Hodsdon
Admissions Counselor
BS Fitchburg State College. 2007

Tara Manzello
Assistant Director od Admissions
BS/MS Fitchburg State College. 2002

Kathy McCoy
Admissions Counselor
Graduate & Continuing Education
BA Simmons College
MBA Bentley University. 2009

Shanni Smith
Assistant Director
BS/MS Fitchburg State College. 2004

Financial Aid

Lynn Beauregard
Director, Student Accounts and Financial Aid.
1998

Andria Johnson
Financial Aid Counselor. 2008

Thea Mar
Staff Assistant
BS Salem State. 2007

Alcira Zadroga
Associate Director, Financial Aid
BS Worcester State College. 1996

Registrar

Linda Dupell
Registrar
BS Fitchburg State College
MS Clark University. 2009

Dean of Student and Academic Life

Stanley Bucholc
Dean of Student and Academic Life
BA Glassboro State College
MA W. Virginia University
EdD W. Virginia University. 1976

Elizabeth Basiner PA-C
Physician Assistant Certified
BS College of the Holy Cross
MS Northeastern University. 2005

Heather Beam
Associate/Academic Advising Center
BA Parsons College, Fairfield Iowa
MA Anna Maria College. 2002

Keith Brouillard
Associate Director Athletics/Sports Information
Director (S.I.D.)
BS Franklin Pierce University
MS Franklin Pierce University. 2008

Jamie Cochran
Staff Assistant/Coordinator, ACCESS
MS Educational Fellowship
BS Fitchburg State College. 1995

Bradley Cohrs
Associate Director, Recreation Center
BBA University of Iowa
MA University of Iowa. 2006

Katrina Durham
Staff Associate Adaptive Lab

Travis Farley
Staff Assistant, Athletics & Recreation Services
Manager
BS Plymouth State University
MEd Springfield College. 2007

Martha Favre
Director of Health Services
BS Tufts University
BSN Salem State College
MS University of Massachusetts, Amherst. 1991

Elizabeth Fineberg
Associate Director of Counseling Services
BA Indiana University
MSW Simmons School of Social Work. 2001

Donna Foley
Director, Academic Advising Center
BS/MS Fitchburg State College. 1988

Shane Franzen
Associate Director, Student Development
and Campus Center
BA University of Charleston
MA Fitchburg State College. 2001

Andrew Guay
Staff Assistant, Recreation Services
Operations Manager
BS University of New Hampshire
MS University of North Carolina,
Greensboro. 2008

Robert A. Hynes
Assistant Director of Counseling Services
BA Rutgers University
MA Hofstra University
PhD Hofstra University. 2001

Crystal Joseph
Director, Expanding Horizons
BA/MA Southern University A & M
MA/PhD University of Florida. 2009

Erin C. Kelleher
Director, Career Center
MEd Springfield College
BA Western New England College. 2005

Sue E. Lauder
Director, Intercollegiate Athletics
& Recreational Services
BS State University of New York at Cortland
MS Syracuse University. 1996

Paul McGonagle
Staff Associate/Head Football Coach
BS University of Kentucky
MS Eastern Kentucky State University. 2008

Julie Maki
Staff Assistant, Disability Services
BS Fitchburg State College. 1999

Michael Makoski
Assistant Director, Student Development
BA Central Connecticut State University
MA Sacred Heart University. 2007

Francine Menendez-Aponte
Staff Assistant, Disability Services
BS Boston University. 2000

Henry Parkinson III
Director of Student Development,
Student Development and Campus Center
BS Quinnipiac University
EdD Sacred Heart University. 2007

Thomas Rousseau
Assistant Dean for Academic Support Services
BS Fitchburg State College
MEd Springfield College. 2000

Rebecca Shersnow
Staff Assistant, Athletic Trainer
BS Castleton State College
MS University of New Hampshire. 2000

Todd Souliere
Staff Associate/Head Athletic Trainer
BA Lyndon State College
MS Springfield College. 2000

Erin Travia
Counselor/Prevention Coordinator
BA/MA Boston College. 2005

Michelle Walsh
Staff Assistant, Compliance & Student Athlete
Welfare (S.W.A.)
BS Swarthmore College
MS Smith College. 2008

Year indicates the date faculty/staff joined Fitchburg State College

Key
★ Graduate Faculty Appointments
◆ Associate Graduate Faculty Appointments

Finance and Administration

Finance

Sheila R. Sykes
Vice President of Finance
AS Berkshire Community College
BS MCLA
MEd Massachusetts College of Liberal Arts
CAGS University of Massachusetts. 2006

Terry Bizzotto
Staff Assistant/ VP Finance
AS Middlesex Community College. 2007

Mary Lynn Leary
Assistant Vice President of Finance
AA Mount Wachusett Community College
BS Fitchburg State College. 1972

Doreen Ares
Director of Procurement/Finance Technology
AA Mount Wachusett Community College
BS Fitchburg State College. 1978

Cathleen M. Daggett, CPA
Director of Accounting and Financial Reporting
BS Fitchburg State College. 1999

Linda R. Fazio, CPA
Staff Assistant, Accounting Administrator
BBA Assumption College. 2002

Capital Planning and Maintenance

Eric W. Hansen
Director, Capital Planning & Maintenance
BS Western New England College. 2005

Linda Fleming
Staff Assistant, Camis Manager. 2007

Jeffrey Leary
Staff Assistant
Materials Management Manager. 1980

Joseph LoBuono
Assistant Director, Maintenance
BS Facilities & Plant Engineering
Mass Maritime Academy. 2006

Heide Messing
Staff Assistant, Planning and Design
BS Fitchburg State College. 1995

Steven Nolin
Staff Assistant, Building Services Manager
Electronics Engineer, MWCC
BS Business Management, Franklin Pierce College. 2007

David Petrucci
Staff Assistant, Chief Power Plant Engineer/ Building Maintenance Manager. 1979

Department of Environmental Safety

Joanne Soczek
Environmental Safety Officer
BS Fitchburg State College. 2002

Housing and Residential Services

AnnMarie Caprio Dunton
Director of Housing and Residential Services
BS St. Joseph's College
MEd Suffolk University. 2004

Thomas Clark
Operations Coordinator
BS Stonehill College
MEd Suffolk University. 2010

Shane Franzen
Associate Director for Student Development and Building Director
BA University of Charleston
MA Fitchburg State College. 1999

Michael McCarthy
Staff Assistant, Building Director
BS Fitchburg State College
MS Fitchburg State College. 2005

Melissa Tasca
Staff Assistant, Building Director
BA Keene State College. 2004

Heather Thomas
Staff Assistant
BA Fitchburg State College
MS Fitchburg State College. 1997

Katherine Thompson
Staff Assistant, Building Director
BA Fitchburg State College
MS Fitchburg State College. 2007

Technology Department

Steve Swartz
Chief Information Officer
BS Wright State University
MBA Xavier University. 2008

Patricia Carroll
Staff Assistant, Technology Department
BS Worcester State College
MS Fitchburg State College. 1980

Anthony Chila
Staff Assistant, Technology Department
BS University of Lowell. 1998

Stefan Dodd
Staff Associate/OneCard Manager
BS Fitchburg State College. 2005

Julie Dunlap LePoer
Staff Assistant, Technology Department
BM Berklee College of Music
MS Fitchburg State College. 2004

Michael D. Ferreira
Staff Assistant, Technology Department
BS Fitchburg State College. 1988

Rodney Gaudet
Staff Associate, Technology Department
BS Fitchburg State College. 1984

Sherry Horeanopoulos
Information Security Officer
Mass College of Art
BA Montserrat College of Visual Art. 1997

Cheryl Johnson
Staff Associate Technology Department
AS Mount Wachusett Community College. 1986

Brion Keagle
Assistant Director of IT Core Services
BS Worcester Polytechnic Institute
MS John Hopkins University. 2006

Jane Lewicke
Staff Assistant, Technology Department
BS Lowell Technological Institute
MAM Worcester State College. 1984

Jennie Pao
Staff Assistant, Technology Department
BA National Chung-Hsin University
MS University of Massachusetts, Lowell. 1990

Heather J. Pellerin
Staff Associate, Technology Department
BS Fitchburg State College. 1998

James Roger
Director, Auxiliary Services
Journeyman. 1982

Ronda Thompson
Assistant Director of IT User Services
AS New Hampshire Community Technical College
BS Keene State College
MS Antioch University New England. 2006

Joseph Turner
Director, Technology Department
AS Middlesex Community College. 1997

Year indicates the date faculty/staff joined Fitchburg State College.

ACADEMIC GLOSSARY AND INDEX

Academic Glossary

Advanced Placement Credit

AP credit is given to students who score three or higher on the Advanced Placement examinations in biology, Advanced Placement Science A, English composition and English literature, English language and composition, any of the foreign languages, calculus AB or BC exams, U.S. history, European history, psychology, and American government and politics. Contact the Registrar's Office for the credits assigned.

Baccalaureate

The bachelor's degree; traditional first step on the ladder of higher education. It is characterized by a four year program which blends courses aimed at promoting the acquisition of broad knowledge through a solid foundation in the Liberal Arts and Sciences as well as courses designed to give depth of understanding in the major field.

Carnegie Unit

The unit of work expected of students for each university credit. The university expects students to spend 45 hours of work for each credit. The most common break down for one credit is one hour of class work and two hours of homework for fifteen weeks each semester. A three-credit course demands nine hours of work each week.

CLEP

The College Level Examination Program by which up to 60 semester hours of credit may be earned towards your degree. Contact the Career Center for CLEP information.

Credits

Arithmetic representation of the value of completed course work towards the degree requirements. One classroom hour and two hours of homework for the nominal 15-week semester usually counts for one credit. As the usual course responsibility requires three classroom hours per week, per semester, and six hours of work per week outside the classroom, the normal yield per course is three credits. Tradition and practice in the case of laboratory, studio, shop, and other practica awards proportional credit for hours of attendance.

Department

An administrative subdivision of the faculty. Sometimes the department is identical with a discipline category such as English or mathematics. Departments such as Behavioral Sciences, Humanities, and Social Sciences represent an association of faculty members of related disciplines.

Electives

Those course selections by the candidate which are not predetermined by graduation, major, or minor requirements.

Liberal Arts and Sciences

Befitting the baccalaureate tradition and current practice, a Fitchburg State University candidate is required to complete a minimum of 60 credits in a college. For details, see Liberal Arts and Sciences Program.

Major

That structured experience in an academic field which constitutes the candidate's specialization. All degree programs require a major. As considerable variation exists as to prerequisites and total credits, the candidate must carefully study the structure of the major of her/his choice. For details of major requirements, see Courses and Programs.

Minor

That structured experience in a related discipline/field which is recognized by the major department as supportive of the candidate's specialization. Minors are defined by the academic department offering them. As considerable variation in requirements exist, the candidate should study carefully the minor offerings, see Courses and Programs.

Prerequisite

Those courses which must be satisfactorily completed before admission to certain other courses. Prerequisite courses are listed in the course description of the course requiring them. Again, see Courses and Programs.

Program

That construct of Liberal Arts and Sciences, major, minor, and/or professional courses which satisfies the requirements for a particular degree.

Self-Help

Self-Help is in the form of loans and work.

Track

That subdivision of academic programs which constitutes a unit of professional competence. Suggestive of the complexity of identifications involved in only one department, consider the example of Business Administration. This program includes tracks in accounting, management, and marketing. The candidate should clarify with their advisor and major department the track which they are interested in pursuing.

Waiver of Regulations

Recognizing the inappropriateness of rigidity in endeavors to promote its goals, the university provides for waiver procedure relative to its baccalaureate rules, regulations, and programs. All petitions for waiver of regulations begin with the Office of the dean of student and academic life if they involve undergraduate requirements and the Office of the Dean of Graduate and Continuing Education for graduate requirements. The student should note that reasons for waiver must be as exceptional as the granting of one.

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